IOPP JOURNALS ARCHIVE LICENCE (access via The Institute of Physics Secure Network)

THIS AGREEMENT is made day of 200

BETWEEN: IOP PUBLISHING LIMITED, a company having registered number 467514 and having its registered office at Dirac House, Temple Back, Bristol BS1 6BE ("Publisher or IOPP").

AND

RECITALS

WHEREAS the IOPP Journals Archive is the IOPP's digitised journals archive covering the years 1874-1995 inclusive:

AND WHEREAS TIB obtained from the Publisher in the IOPP Journals Archive Purchase and Licence Agreement dated December 2005 ("the 2005 Agreement") the permanent rights to make access available and allow use of the Licensed Material, on specified terms, by authorised users of eligible institutions, all as defined in the 2005 Agreement;

AND WHEREAS the Publisher agreed as part of the 2005 Agreement that it would make the Licensed Material available to eligible institutions through its network ("Hosting Service") on the negotiated terms and conditions set out in Schedule 4 of the 2005 Agreement ("the IOPP Licence") if so requested by an eligible institution;

AND WHEREAS the Institution, being such an eligible institution, now wishes to access and use the Licensed Material through the Hosting Service;

AND WHEREAS the parties now consequently enter into this IOPP Licence to enable the Institution to access and use the Licensed Material on the terms and conditions negotiated between the Publisher and TIB for such purpose.

IT IS AGREED AS FOLLOWS:

1. DEFINITIONS

1.1 In this Agreement, the following expressions shall have the following meanings:

"Authorised Users" means individuals who are authorised by the Institution to access the Licensed Material whether on-site or off site via Secure Authentication and who are affiliated to the Institution as a current student, faculty member or employee of the Institution. Persons who are not a current student, faculty member or an employee of the Institution, but who are permitted to access the Institution's information services from computer terminals within the Institution's Library Premises ["Walk-In Users"] are also deemed to be Authorised Users, only for the time they are within the Library Premises. Walk-In Users may not be given means to access the Licensed Material when they are not within the Library Premises.

"Commercial Use" means use of the Licensed Material for the purpose of monetary reward (whether by or for the Institution or an Authorised User) by means of the sale, resale, loan, transfer, hire or other form of exploitation, such as inclusion in a document delivery service, of the Licensed Material. For the avoidance of doubt, neither the recovery of direct cost by the Institution from Authorised Users, nor use by the Institution or Authorised Users of the Licensed Material in the course of research funded by a commercial organisation is deemed to constitute Commercial Use.

"Educational Purposes" means for the purpose of education, teaching, distance learning, private study and/or research.

"Hosting Service" means as specified in Schedule 1.

"Intellectual Property Rights" means patents, trademarks, trade names, design rights, database rights, copyright (including rights in computer software and moral rights), rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for the grant of any of the foregoing and all rights or forms of protection having equivalent or similar effect to any of the foregoing which may subsist anywhere in the world.

"Library Premises" means the physical premises of the library or libraries operated by the Institution.

"Licensed Material" means the material licensed in this Agreement known to the parties as the IOPP Journals Archive which is IOPP's digitised journals archive covering the years 1874- 1995 inclusive as listed in Schedule 2.

"Secure Authentication" means access to the Licensed Material by, Internet Protocol ("IP") ranges or by another means of authentication agreed between Publisher and the Institution from time to time.

"Secure Network" means a network which is only accessible by Secure Authentication.

- 1.2 Headings contained in this Agreement are for reference purposes only and shall not be deemed to be an indication of the meaning of the clause to which they relate.
- 1.3 Where the context so implies, words importing the singular number shall include the plural and vice versa and words importing the masculine shall include the feminine and vice versa.

SECTION 1: LICENCE

2. GRANT OF LICENCE

2.1 In consideration of the representations and warranties under clause 10, the Publisher hereby grants the Institution a non-exclusive licence to access and use the Licensed Material and to allow Authorised Users to access and use the Licensed Material throughout the term of this Agreement by means of a Secure Network for Educational Purposes only on the terms and conditions set out in this Agreement.

3. USE OF THE LICENSED MATERIAL

- 3.1 Throughout the term of this Agreement the Institution may for Educational Purposes only:
 - 3.1.1 make such local electronic copies of all or part of the Licensed Material as are necessary to ensure efficient use by Authorised Users, provided that such use is subject to all the terms and conditions of this Agreement;
 - 3.1.2 allow Authorised Users to access the Licensed Material by Secure Authentication in order to search, retrieve, display and view, and otherwise use portions thereof;
 - 3.1.3 allow Authorised Users to electronically save parts of the Licensed Material;
 - 3.1.4 allow Authorised Users to print out copies of individual articles from the Licensed Material;
 - 3.1.5 provide single printed or electronic copies of individual articles from the Licensed Material at the request of individual Authorised Users;
 - 3.1.6 supply to a library at another university or further education establishment in Germany (whether by post or fax) by way of inter library loan a single paper copy of an electronic original of an article from the Licensed Material:
 - 3.1.7 incorporate parts of the Licensed Material in printed and electronic course packs and study packs hosted on a Secure Network, virtual learning environments, managed learning environments and multi-media works provided that by so doing parts of the Licensed Material will not be accessible to persons who are not Authorised Users. Each item shall carry appropriate acknowledgement of the source, listing title and copyright owner. Course packs in non-electronic non-print perceptible form, such as Braille, may also be offered to Authorised Users;

3.1.8 incorporate parts of the Licensed Material in printed or electronic form in assignments and portfolios, theses and in dissertations ("the Academic Works"), including reproductions of the Academic Works for personal use and library deposit, if such use conforms to the customary and usual practice of the Institution provided that by so doing parts of the Licensed Material will not be accessible to persons who are not Authorised Users except that reproductions in printed or electronic form of Academic Works may be provided to sponsors of such Academic Works. Each item shall carry appropriate acknowledgement of the source, listing title and copyright owner.

- 3.1.9 display, download and print parts of the Licensed Material for the purpose of promotion of the Licensed Material, testing of the Licensed Material, or for training Authorised Users;
- 3.1.10 publicly display or publicly perform parts of the Licensed Material as part of a presentation at a seminar, conference, or workshop, or other such similar activity; and
- 3.1.11 make such copies of training material and network such training material as may be required for the purpose of using the Licensed Material in accordance with this Agreement.

4. RESTRICTIONS

- 4.1 Save as provided herein, the Institution and Authorised Users may not:
 - 4.1.1 sell or resell the Licensed Material unless the Institution or an Authorised User has been granted prior written consent by the Publisher to do so;
 - 4.1.2 include in any document supply or inter-library service, (including inter library loan) redistribute, publish or otherwise make the information contained in the Licensed Material available in any manner or on any media to any one other than Authorised Users or a library at another university or further education establishment in Germany. For the avoidance of doubt inter library loan may not be provided to commercial undertakings. Nor may inter library loans be made to libraries outside Germany.;
 - 4.1.3 remove, obscure or modify copyright notices, text acknowledging or other means of identification or disclaimers as they appear;
 - 4.1.4 make printed or electronic copies of multiple extracts of the Licensed Material for any purpose, beyond those authorised by this Agreement;
 - 4.1.5 display or distribute any part of the Licensed Material on any electronic network, including without limitation the Internet and the World Wide Web, and any other distribution medium now in existence or hereinafter created, other than by a Secure Network;
 - 4.1.6 alter, adapt or modify or create any derivative work based on the Licensed Material or use it in any manner which would infringe the Intellectual Property Rights of IOPP except as otherwise permitted under this Agreement;
 - 4.1.7 supply electronically the Licensed Material for the purpose of inter library loan;
 - 4.1.8 permit anyone other than Authorised Users to access or use the Licensed Material; or
 - 4.1.9 use all or any part of the Licensed Material for any Commercial Use or for any purpose other than Educational Purposes.
- 4.2 This Clause shall survive termination of this Agreement for any reason.

5. RESPONSIBILITIES OF THE INSTITUTION

- 5.1 The Institution will:
 - 5.1.1 issue passwords or other access information only to Authorised Users and use all reasonable efforts to ensure that Authorised Users do not divulge their passwords or other access information to any third party;

5.1.2 use all reasonable efforts to ensure that only Authorised Users are permitted access to the Licensed Material and that such access is by Secure Authentication;

- 5.1.3 use all reasonable efforts to ensure that all Authorised Users are made aware of and undertake to abide by the terms of this Agreement;
- 5.1.4 use all reasonable efforts to monitor compliance and notify Publisher immediately and provide full particulars on becoming aware of any of the following (a) any unauthorised use of any of the Institution's password(s); or (b) any breach by an Authorised User of the terms of this Agreement. Upon becoming aware of any breach of the terms of this Agreement the Institution further agrees promptly to fully investigate and initiate disciplinary procedures in accordance with the Institution's standard practice and use all reasonable effort to ensure that such activity ceases and to prevent any recurrence including where necessary by terminating access to the Licensed Material by such unauthorised user and/or such Authorised User;
- 5.1.5 take all reasonable steps to ensure the security of the Licensed Material; and
- 5.1.6 provide lists of valid IP addresses to the Publisher and update those lists on a regular basis the frequency of which will be agreed by the parties from time to time.

6. RESPONSIBILITIES OF PUBLISHER

- 6.1 Publisher shall ensure access and use of the Licensed Material in accordance with the provisions as laid down in this Agreement.
- 6.2 Publisher shall cause product support to be provided to the Institution and to Authorised Users.

7. USAGE DATA

7.1 The parties shall co-operate in gathering any data on usage of the Licensed Material that is available to them during the term of this Agreement, and shall provide such data to each other upon request. Notwithstanding the foregoing, the parties shall neither assemble nor provide data from which an individual user could be identified.

8. LICENCE FEE

8.1 The terms of payment to the Publisher for the Licence granted herein are set out in Schedule 1.

9. ACKNOWLEDGEMENT AND PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

9.1 The Institution acknowledges that all Intellectual Property Rights in the Licensed Material are the sole and exclusive property of the Publisher or are duly licensed to the Publisher and that this Agreement does not assign or transfer to the Institution any right, title or interest therein except for the right to use the Licensed Material in accordance with the terms and conditions of this Agreement.

10. REPRESENTATIONS, WARRANTIES, INDEMNIFICATION AND LIMITATIONS OF LIABILITY IN RESPECT OF THE LICENSED MATERIAL

- 10.1 The Institution represents and warrants that it has sufficient authority and rights to enter into and perform its obligations under this Agreement.
- 10.2 The Publisher warrants to the Institution that the Licensed Material and all Intellectual Property Rights therein are owned by or licensed to the Publisher and that use of the Licensed Material by the Institution and Authorised Users in accordance with the terms of this Agreement shall not infringe any copyright of any third party. The foregoing shall not apply to improper usage of the Licensed Material by the Institution or Authorised Users.
- 10.3 The Publisher reserves the right to change the content, presentation, user facilities or availability of parts of the Licensed Material (including removal of an entire journal on ceasing to have the right to publish it) and to make changes in any software used to make the Licensed Material available at their sole discretion. The Publisher will notify the Institution of any substantial change to the Licensed Material. The Publisher will use its best efforts to agree with any purchaser of a journal that the Institution may retain access to such journal as

part of the Licensed Materials under this Agreement notwithstanding sale of the journal.

10.4 The Publisher makes no representation and gives no warranty express or implied with regard to the accuracy of the information contained in or in any part of the Licensed Material and the fitness of such information or part for any purposes whatsoever and the Publisher accepts no liability for loss suffered or incurred by the Institution or Authorised Users as a result of their reliance on the Licensed Material or for any loss suffered or incurred as a result of pages being omitted from the Licensed Material in error provided IOPP will rectify such omissions as soon as reasonably practical on being made aware of them.

10.5 In no circumstances will the Publisher be liable to the Institution for any loss resulting from a cause over which the Publisher does not have direct control, including but not limited to failure of electronic or mechanical equipment or communication lines, telephone or other interconnect problems, unauthorised access, theft, or operator errors.

10.6 The Institution agrees to notify Publisher promptly and provide full particulars in the event that it becomes aware of any actual, suspected or threatened claims by any third party in connection with works contained in the Licensed Material and do all things reasonably required to assist the Publisher in such claims. It is expressly agreed that upon such notification, or if Publisher becomes aware of such a claim from other sources, Publisher may remove such work(s) from the Licensed Material. Failure to report knowledge of any actual or threatened claim by any third party shall be deemed a material breach of this Agreement. At the request of Publisher, the Institution will make all reasonable efforts to remove such work(s) from any copies of the Licensed Material maintained by the Institution.

10.7 The Institution represents to the Publisher that its computer system through which the Licensed Material will be used is configured, and procedures are in place, to prohibit access to the Licensed Material by any person other than an Authorised User; that it shall inform Authorised Users about the conditions of use of the Licensed Material; and that during the term of this Agreement, the Institution will continue to make all reasonable efforts to bar non-permitted access and to convey appropriate use information to its Authorised Users.

SECTION 2: PUBLISHER'S HOSTING SERVICE

11. PROVISION OF SERVICE

Publisher will provide the Hosting Service to the Institution throughout the term of this Agreement. It is the Institution's responsibility to ensure that only Authorised Users of the Licensed Material access the Licensed Material through the Hosting Service.

12. HOSTING SERVICE FEE

12.1 The terms of payment to the Publisher for the Hosting Service are set out in Schedule 1.

13. REPRESENTATIONS AND LIMITATIONS OF LIABILITY IN RESPECT OF THE PUBLISHER'S HOSTING SERVICE

13.1 Publisher shall use commercially reasonable efforts to provide continuous availability of the Hosting Service, subject to periodic unavailability due to maintenance of the server(s), the installation or testing of software, the loading of data and downtime related to equipment, the failure of communications networks, or services outside of control of Publisher. Scheduled downtime will be performed at a time to minimize inconvenience to customers worldwide.

13.2 Publisher will not be liable in any way for any failure in, interruption to or degradation of the Hosting Service caused directly or indirectly by Institution's equipment or communications networks.

SECTION 3: GENERAL TERMS AND CONDITIONS

14. TERM AND TERMINATION

14.1 The term of this Agreement will commence upon the date of signature and, unless terminated earlier in accordance with the terms of this Clause 14, will remain in full force and effect until 31st December 2009 and

shall continue thereafter unless and until terminated for any reason by either party giving the other not less than three months notice to that effect.

14.2 Either party may terminate this Agreement at any time on the material or repeated other breaches by the other of any obligation on its part under this Agreement by serving a written notice on the other identifying the nature of the breach. The termination will become effective thirty days after receipt of the written notice unless during the relevant period of thirty (30) days the defaulting party remedies the breach forthwith by written notice to the other party.

15. GENERAL LIMITATIONS OF LIABILITY

- 15.1 Nothing in this Agreement shall make the Institution liable for breach of the terms of this Agreement by any Authorised User provided that the Institution did not cause, knowingly assist or condone the continuation of such breach after becoming aware of an actual breach having occurred.
- 15.2 Neither the Institution nor the Publisher will be liable to the other or to any Authorised User in contract or negligence or otherwise for (i) any special, indirect, incidental, punitive or consequential damages or (ii) loss of direct or indirect profits, business, contracts, revenue or anticipated savings or for any increased costs or expenses.
- 15.3 No party limits its liability for (i) death or personal injury to the extent it results from its negligence, or of its employees or agents in the course of their engagement; and (ii) its own fraud or that of its employees or agents in the course of their engagement.

16. FORCE MAJEURE

- 16.1 Either party's failure to perform any term or condition of this Agreement as result of circumstances beyond the control of the relevant party (including without limitation, war, strikes, flood, governmental restrictions, and power, telecommunications or Internet failures, failures in hardware, firmware or third party software, power failure, operation administration and maintenance activities by third parties, or damages to or destruction of any network facilities ["Force Majeure"]) shall not be deemed to be, or to give rise to, a breach of this Agreement.
- 14.2 If either party to this Agreement is prevented or delayed in the performance of any of its obligations under this Agreement by Force Majeure and if such party gives written notice thereof to the other party specifying the matters constituting Force Majeure together with such evidence as it reasonably can give and specifying the period for which it is estimated that such prevention or delay will continue, then the party in question shall be excused the performance or the punctual performance as the case may be as from the date of such notice for so long as such cause of prevention or delay shall continue.

17. ASSIGNMENT

Neither this Agreement nor any of the rights under it may be assigned or sub-licensed by either party.

18. GOVERNING LAW AND DISPUTE RESOLUTION

- 18.1 The parties agree to use best efforts to resolve disputes in an informal manner, by decision of the person responsible for library services at the Institution and the Managing Director of the Publisher. Where the parties agree that a dispute arising out or in connection with this Agreement would best be resolved by the decision of an expert, they will agree upon the nature of the expert required and together appoint a suitable expert by agreement. Either party may notify TIB of any disputes being resolved under this clause 18.1.
- 18.2 Initially this Agreement shall be governed by and construed in accordance with English law and the parties irrevocably agree that any dispute arising out of or in connection with this Agreement will be subject to and within the jurisdiction of the English courts. The parties will reconsider the provisions of this clause 18.2 when the copyright act in Germany is revised; to reconsider does not necessarily mean that the governing law will be changed.
- 18.3 Any person to whom a reference is made under Clause 18.1 shall act as expert and not as an arbitrator and his decision (which shall be given by him in writing and shall state the reasons for his decision) shall be final and binding on the parties except in the case of manifest error or fraud.

18.4 Each party shall provide the expert with such information and documentation as he may reasonably require for the purposes of his decision.

18.5 The costs of the expert shall be borne by the parties in such proportions as the expert may determine to be fair and reasonable in all circumstances or, if no determination is made by the expert, by the parties in equal proportions.

19. NOTICES

19.1 All notices required to be given under this Agreement shall be given in writing in English and sent by courier to the relevant addressee at its address set out below, or to such other address as may be notified by either party to the other from time to time under this Agreement, and all such notices shall be deemed to have been received five days after despatch.

if to the Institution: [insert details]

if to the Publisher Group Legal Adviser

IOP Publishing Limited

Dirac House Temple Back Bristol BS1 6BE England

20. GENERAL

- 20.1 This Agreement and its Schedules constitute the entire agreement between the parties relating to the Licensed Material and supersede all prior communications, understandings and agreements (whether written or oral) relating to its subject matter and may not be amended or modified except by agreement of both parties in writing.
- 20.2 The Schedules shall have the same force and effect as if expressly set in the body of this Agreement and any reference to this Agreement shall include the Schedules.
- 20.3 No provision in this Agreement is intended to be enforceable by a person who is not a party to this Agreement.
- 20.4 The invalidity or unenforceability of any provision of this Agreement shall not affect the continuation in force of the remainder of this Agreement.
- 20.5 The rights of the parties arising under this Agreement shall not be waived except in writing. Any waiver of any of a party's rights under this Agreement or of any breach of this Agreement by the other party shall not be construed as a waiver of any other rights or of any other or further breach. Failure by either party to exercise or enforce any rights conferred upon it by this Agreement shall not be deemed to be a waiver of any such rights or operate so as to bar the exercise or enforcement thereof at any subsequent time or times.

SCHEDULE 1 -

HOSTING SERVICE

The Hosting Service comprises access to a copy of the Licensed Material, via the Institution's own Internet connection to the Publisher's server

The Hosting Service shall meet the following standards:

Publisher shall use all reasonable endeavours to make the Licensed Material available to Institution and their Authorised Users at all times and on a twenty-four hour basis, save for routine maintenance, and to

restore access to the Licensed Material as soon as possible in the event of an interruption or suspension of the service.

Publisher shall provide sufficient server capacity and bandwidth for access by users from Institution.

Publisher shall provide for customer support services for Institution and to their Authorised Users via e-mail or phone, including answering e-mail inquiries relating to the use, functionality and content of the Licensed Material.

FEES AND PAYMENT TERMS

Licence Fee: None

Hosting Service Fee: None

SCHEDULE 2: LICENSED MATERIAL

The Licensed Material consists of the following from 1874 up to and including content published in 1995:

Journal title	ISSN	Full-text available back to
Classical and Quantum Gravity	0264-9381	1984 (vol 1)
Distributed Systems Engineering	0967- 1846	1994 (vol 1)
European Journal of Physics	0143-0807	1980 (vol 1)
Inverse Problems	0266-5611	1985 (vol 1)
Journal of High Energy Physics	1126-6708	1997 (vol 1)
Journal of Micromechanics and Microengineering	0960-1317	1991 (vol 1)
Journal of Optics (1977- 1998) (Now Journal of Optics A: Pure and Applied Optics (from 1999) Formed by Merger of Journal of Optics and Pure and Applied Optics: Journal of the European Optical Society Part A(1992-1998)) Formerly: Nouvelle Revue d'Optique (1973- 1976) Formerly also Nouvelle Revue d'Optique Appliquée (1970-1972)	0150-536X 1464-4258 0963-9659 0335-7368 0029-4780	1977 (vol 8) None in Archive 1992 (vol 1)_ 1973 (vol 4) 1970 (vol 1)
Journal of Physics A: Mathematical and General Physics (from 1975) Formerly: Journal of Physics A: Mathematical, Nuclear and General Physics (1973-1974) Formerly: Journal of Physics A: Proceedings of the Physical Society: General Physics (1968-1972)	0305-4470 0301-0015 0022-3689	1975 (vol 8) 1973 (vol 6) 1968 (vol 1)
Journal of Physics B: Atomic, Molecular and Optical Physics (from 1988) Formerly: Journal of Physics B: Atomic and Molecular Physics (1970-1987) Formerly: Journal of Physics B: Proceedings of the Physical Society: Atomic and Molecular Physics (1968-1969)	0953-4075 0022-3700 0368-3508	1988 (vol 21) 1970 (vol 1) 1968
Journal of Physics: Condensed Matter (from 1989) Formed by merger of Journal of Physics C: Solid State Physics (1970- 1988) Formerly: Journal of Physics C: Proceedings of the Physical Society: Solid State Physics (1968-1969) and Journal of Physics F: Metal Physics (1971- 1988)	0953-8984 0022-3719 0368-3516 0305-4608	1989 (vol 1) 1970 (vol 1) 1968 (vol 1) 1971

Journal of Physics D: Applied Physics Formerly British Journal of Applied Physics	0022-3727 0508-3443	1968 (vol 1) 1950 (vol 1)
Journal of Physics G: Nuclear and Particle Physics Formerly: Journal of Physics G: Nuclear Physics (1975-1988)	0954-3899 0305-4616	1989 (vol 15) 1975 (vol 1)
Journal of Radiological Protection Formerly: Journal of the Society for Radiological Protection (1981 - 1987)	0952- 4746 0260- 2814	1988 (vol 8) 1981 (vol 1)
Measurement Science and Technology Formerly: Journal of Physics E: Scientific Instruments (1968-1989) Formerly Journal of Scientific Instruments	0957-0233 0022-3735 0950-7671	1990 (vol 1) 1968 (vol 1) 1923 (vol 1)
Metrologia	0026-1394	1965
Modelling and Simulation in Materials Science and Engineering	0965-0393	1992/3 (vol 1)
Nanotechnology	0957-4484	1990 (vol 1)
Nonlinearity	0951-7715	1988 (vol 1)
Nuclear Fusion	0029-5515	1992 (vol 32)
Physics Education	0031-9120	1966 (vol 1)
Physics in Medicine and Biology	0031-9155	1956 (vol 1)
Physics in Technology Formerly: Review of Physics in Technology	0305-4624 0034-6683	1973 (vol 4) 1970 (vol 1)
Physiological Measurement Formerly Clinical Physics and Physiological Measurement (1980-1992)	0967-3334 0143-0815	1993 (vol 14) 1980 (vol 1)
Plasma Physics and Controlled Fusion Formerly: Plasma Physics (1967-1983) Formerly Journal of Nuclear Energy Part C, Plasma Physics, Accelerators, Thermonuclear Research (1959- 1966)	0741-3335 0032-1028 0741-3335	1984 (vol 26) 1967 (vol 9) 1959 (vol 1)
Plasma Sources Science and Technology	0963-0252	1992 (vol 1)

Proceedings of the Physical Society of London (1874-1925) Proceedings of the Physical Society (1926-1948) Proceedings of the Physical Society Section A (1949-1957) Proceedings of the Physical Society Section B (1949-1957) Proceedings of the Physical Society (1958-1967)	1478-7814 0959-5309 0370-1298 0370-1301 03701328	1874 1926 1949 1949 1958
Quantum Optics: Journal of the European Optical Society Part B (1989-1994)	0954-8998	1989 (vol 1)
Reports on Progress in Physics	0034-4885	1934 (vol 1)
Semiconductor Science and Technology	0268-1242	1986 (vol 1)
Smart Materials and Structures	0964-1726	1992 (vol 1)
Superconductor Science and Technology	0953-2048	1988 (vol 1)
Transactions of the Optical Society (1899-1932)	1475-4878	1899 (vol 1)

SIGNED by:

Position:

for and on behalf of
IOP PUBLISHING LIMITED

WITNESSED by:

Position:

Address:

SIGNED by:

Position:

(Signature)

IN WITNESS the hands of the above parties on the date first above written: -

for and on behalf of

WITNESSED by:	
Position:	(Signature)
Address:	

Nutzungsbedingungen

IOPP JOURNALS ARCHIVE SUB-LICENCE AGREEMENT (access via TIB's Secure Network)

TECHNISCHE INFORMATIONSBIBLIOTHEK, whose principal place of business is at Welfengarten 1 B, D 30167 Hannover ("TIB").

OFFERS to you, the Sub-Licensee, the permission to access and use the Licensed Material on the terms and conditions as set out in this Sub-Licence. Upon completing and returning the enclosed Acceptance of Sub-Licence Form, your institution will become a non-exclusive Sub-Licensee of TIB.

Acceptance shall be by delivery of a completed copy of the Acceptance of Sub-Licence Form attached hereto to .. who will accept delivery on behalf of TIB. Acceptance shall be acceptance of all terms of this Sub-Licence. In the event that no or partial compliance is made as to the manner or form described for acceptance, no sub-licence will be granted and this offer is deemed withdrawn.

RECITALS

Nationallizenzen

WHEREAS the IOPP Journals Archive is the IOP Publishing Limited ("IOPP") digitised journals archive covering the years 1874-1995 inclusive ("Licensed Material");

AND WHEREAS the IOPP Journals Archive and all Intellectual Property Rights (as hereafter defined) therein are owned by or licensed to IOPP; and

AND WHEREAS by an agreement between IOPP and TIB dated December 2005 (the "IOPP Journals Archive Purchase and Licence Agreement"), TIB is permitted to sub-license the access and use of IOPP Journals Archive to the Sub-Licensee in accordance with the terms of this Sub-Licence.

IT IS AGREED AS FOLLOWS:

1. DEFINITIONS

1.1 In this Sub-Licence, the following expressions shall have the following meanings:

"Authorised Users" means individuals who are authorised by the Sub-Licensee to access the Licensed Material whether on-site or off site via Secure Authentication and who are affiliated to the Sub-Licensee as a current student, faculty member or employee of the Sub-Licensee. Persons who are not a current student, faculty member or an employee of the Sub-Licensee, but who are permitted to access the Sub-Licensee's information services from computer terminals within the Sub-Licensee's Library Premises ["Walk-In Users"] are also deemed to be Authorised Users, only for the time they are within the Library Premises. Walk-In Users may not be given means to access the Licensed Material when they are not within the Library Premises.

"Commercial Use" means use of the Licensed Material for the purpose of monetary reward (whether by or for the Sub-Licensee or an Authorised User) by means of the sale, resale, loan, transfer, hire or other form of exploitation, such as inclusion in a document delivery service, of the Licensed Material. For the avoidance of doubt, neither the recovery of direct cost by the Sub-Licensee from Authorised Users, nor use by the Sub-Licensee or Authorised Users of the Licensed Material in the course of research funded by a commercial organisation is deemed to constitute Commercial Use.

"Educational Purposes" means for the purpose of education, teaching, distance learning, private study and/or research.

"Fee" means the fee as set out in Schedule 1.

"Intellectual Property Rights" means patents, trademarks, trade names, design rights, database rights copyright (including rights in computer software and moral rights), rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for the grant of any of the foregoing and all rights or forms of protection having equivalent or similar effect to any of the foregoing which may subsist anywhere in the world.

"Library Premises" means the physical premises of the library or libraries operated by the Sub-Licensee.

ensed Material" means the material licensed in this Sub-Licence known to the parties as the IOPP Journals Archive which is IOPP's digitised journals archive covering the years 1874-1995 inclusive as listed in Schedule 2.

"Secure Authentication" means access to the Licensed Material by Internet Protocol ("IP") ranges or by another means of authentication agreed between IOPP and TIB from time to time.

"Secure Network" means a network which is only accessible by Secure Authentication.

Sub-Licensee'' Means the sub-licensee whose details are set out in the Acceptance of Licence Form attached hereto and made part hereof.

- 1.2 Headings contained in this Sub-Licence are for reference purposes only and shall not be deemed to be an indication of the meaning of the clause to which they relate.
- 1.3 Where the context so implies, words importing the singular number shall include the plural and vice versa and words importing the masculine shall include the feminine and vice versa.

SECTION 1: LICENCE

2. GRANT OF LICENCE

2.1 The Sub-Licensee agrees to pay the Fee set out in Schedule 1, in consideration of which TIB agrees to grant to the Sub-Licensee a non-exclusive sub-licence to access and use the Licensed Material and to allow Authorised Users to access and use the Licensed Material throughout the term of this Sub-Licence by means of a Secure Network for Educational Purposes only on the terms and conditions of this Sub-Licence.

3. USE OF THE LICENSED MATERIAL

- 3.1 Throughout the term of this Sub-Licence the Sub-Licensee may for Educational Purposes only:
 - 3.1.1 make such local electronic copies of all or part of the Licensed Material as are necessary to ensure efficient use by Authorised Users, provided that such use is subject to all the terms and conditions of this Sub-Licence;
 - 3.1.2 allow Authorised Users to access the Licensed Material by Secure Authentication in order to search, retrieve, display and view, and otherwise use portions thereof;
 - 3.1.3 allow Authorised Users to electronically save parts of the Licensed Material;
 - 3.1.4 allow Authorised Users to print out copies of individual articles from the Licensed Material;
 - 3.1.5 provide single printed or electronic copies of individual articles from the Licensed Material at the request of individual Authorised Users;
 - 3.1.6 supply to a library at universities or further education establishments in Germany (whether by post or fax) by way of inter library loan a single paper copy of an electronic original of an article from the

Licensed Material;

3.1.7 incorporate parts of the Licensed Material in printed and electronic course packs and study packs hosted on a Secure Network, virtual learning environments, managed learning environments and multi-media works provided that by so doing parts of the Licensed Material will not be accessible to persons who are not Authorised Users. Each item shall carry appropriate acknowledgement of the source, listing title and copyright owner. Course packs in non-electronic non-print perceptible form, such as Braille, may also be offered to Authorised Users;

- 3.1.8 incorporate parts of the Licensed Material in printed or electronic form in assignments and portfolios, theses and in dissertations ("the Academic Works"), including reproductions of the Academic Works for personal use and library deposit, if such use conforms to the customary and usual practice of the Sub-Licensee provided that by so doing parts of the Licensed Material will not be accessible to persons who are not Authorised Users except that reproductions in printed or electronic form of Academic Works may be provided to sponsors of such Academic Works. Each item shall carry appropriate acknowledgement of the source, listing title and copyright owner.
- 3.1.9 display, download and print parts of the Licensed Material for the purpose of promotion of the Licensed Material, testing of the Licensed Material, or for training Authorised Users;
- 3.1.10 publicly display or publicly perform parts of the Licensed Material as part of a presentation at a seminar, conference, or workshop, or other such similar activity;
- 3.1.11 make such copies of training material and network such training material as may be required for the purpose of using the Licensed Material in accordance with this Agreement.

4. RESTRICTIONS

- 4.1 Save as provided herein, the Sub-Licensee and Authorised Users may not:
 - 4.1.1 sell or resell the Licensed Material unless the Institution or an Authorised User has been granted prior written consent by the Publisher to do so;
 - 4.1.2 include in any document supply or inter-library service (including inter library loan), redistribute, publish or otherwise make the information contained in the Licensed Material available in any manner or on any media to any one other than Authorised Users or to a library at another university or further education establishment in Germany. For the avoidance of doubt interlibrary loans may not be provided to commercial undertakings. Nor may interlibrary loans be made to libraries outside Germany;
 - 4.1.3 remove, obscure or modify copyright notices, text acknowledging or other means of identification or disclaimers as they appear;
 - 4.1.4 make printed or electronic copies of multiple extracts of the Licensed Material for any purpose, beyond those authorised by this Agreement;
 - 4.1.5 display or distribute any part of the Licensed Material on any electronic network, including without limitation the Internet and the World Wide Web, and any other distribution medium now in existence or hereinafter created, other than by a Secure Network;
 - 4.1.6 alter, adapt or modify or create any derivative work based on the Licensed Material or use it in any manner which would infringe the Intellectual Property Rights of IOPP except as otherwise permitted under this Agreement;
 - 4.1.7 supply electronically the Licensed Material for the purpose of inter library loan;
 - 4.1.8 permit anyone other than Authorised Users to access or use the Licensed Material; or
 - 4.1.9 use all or any part of the Licensed Material for any Commercial Use or for any purpose other than Educational Purposes.
- 4.2 This Clause shall survive termination of this Sub-Licence for any reason.

5. RESPONSIBILITIES OF THE SUB-LICENSEE

5.1 The Sub-Licensee will:

- 5.1.1 issue passwords or other access information only to Authorised Users and use all reasonable efforts to ensure that Authorised Users do not divulge their passwords or other access information to any third party;
- 5.1.2 use all reasonable efforts to ensure that only Authorised Users are permitted access to the Licensed Material and that such access is by Secure Authentication;
- 5.1.3 use all reasonable efforts to ensure that all Authorised Users are made aware of and undertake to abide by the terms of this Sub-Licence;
- 5.1.4 use all reasonable efforts to monitor compliance with the terms of this Sub-Licence and notify IOPP and TIB immediately and provide full particulars on becoming aware of any of the following (a) any unauthorised use of any of the Institution's password(s); or (b) any breach by an Authorised User of the terms of this Sub-Licence. Upon becoming aware of any breach of the terms of this Sub-Licence the Institution further agrees promptly to fully investigate and initiate disciplinary procedures in accordance with the Institution's standard practice and use all reasonable effort to ensure that such activity ceases and to prevent any recurrence including where necessary by terminating access to the Licensed Material to such unauthorised user and/or such Authorised User;
- 5.1.5 take all reasonable steps to ensure the security of the Licensed Material; and
- 5.1.6 provide lists of valid IP addresses to TIB and update those lists on a regular basis the frequency of which will be agreed by the parties from time to time.
- 5.2 It is the Sub-Licensee's responsibility to ensure that only Authorised Users access the Licensed Material.

6. RESPONSIBILITIES OF TIB

- 6.1 TIB shall use all reasonable efforts to ensure access and use of the Licensed Material in accordance with the provisions as laid down in this Sub-Licence.
- 6.2 TIB shall use all reasonable efforts to cause product support to be provided by the Publisher to the Sub-Licensee and to Authorised Users.
- 6.3 TIB shall use reasonable efforts to provide continuous availability of the Licensed Material, subject to periodic unavailability due to maintenance of the server(s), the installation or testing of software, the loading of data and downtime related to equipment, the failure of communications networks, or services outside of control of TIB. Scheduled downtime will be performed at a time to minimize inconvenience to Authorised Users.
- 6.4 TIB will not be liable in any way for any failure in, interruption to or degradation of access arrangements caused directly or indirectly by Sub-Licensee's equipment or communications networks.

7. USAGE DATA

The parties shall co-operate in gathering any data on usage of the Licensed Material that is available to them during the term of this Sub-Licence, and shall provide such data to each other upon request. Notwithstanding the foregoing, the parties shall neither assemble nor provide data from which an individual user could be identified.

8. FEE

The Sub-licensee shall pay a Fee to TIB for the Sub-Licence in the amount and upon terms and conditions set out in Schedule 1.

9. TERM AND TERMINATION

9.1 The term of this Sub-Licence will commence upon the date of signature and, unless terminated earlier in accordance with the terms of this Clause 9, will remain in full force and effect until 31st December 2006 and

shall continue thereafter unless and until terminated for any reason by either party giving the other not less than three month's notice to that effect.

9.2 Either party may terminate this Sub-Licence at any time on the material or repeated other breaches by the other of any obligation on its part under this Sub-Licence by serving a written notice on the other identifying the nature of the breach. The termination will become effective thirty days after receipt of the written notice unless during the relevant period of thirty (30) days the defaulting party remedies the breach forthwith by written notice to the other party.

10. ACKNOWLEDGEMENT AND PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

The Sub-Licensee acknowledges that all Intellectual Property Rights in the Licensed Material are the sole and exclusive property of IOPP or TIB or are duly licensed to IOPP and that this Sub-Licence does not assign or transfer to the Sub-Licensee any right, title or interest therein except for the right to use the Licensed Material in accordance with the terms and conditions of this Sub-Licence.

11. REPRESENTATIONS, WARRANTIES, INDEMNIFICATION AND LIMITATIONS OF LIABILITY IN RESPECT OF THE LICENSED MATERIAL

- 11.1 The Sub-Licensee represents and warrants that it has sufficient authority and rights to enter into and perform its obligations under this Sub-Licence.
- 11.2 TIB represents and warrants that it has the right to grant the Sub-Licence and that the use of the Licensed Material by the Sub-Licensee and Authorised Users in accordance with the terms of this Sub-Licence shall not infringe the copyright of any third party. The foregoing shall not apply to improper usage of the Licensed Work by the Sub-Licensee or Authorised Users. TIB makes no representation or warranty, and expressly disclaims any liability with respect to the content of the Licensed Work, including but not limited to errors or omissions contained therein, libel, infringement of rights of publicity, privacy, trademark rights, moral rights, or the disclosure of confidential information.
- 11.3 Other than the express warranties stated in this Clause 11, the Licensed Work is provided on an "as is" basis, and TIB disclaims any and all other warranties, conditions, or representations (express, implied, oral or written), relating to the Licensed Work or any part thereof, including, without limitation, any and all implied warranties of quality, performance, merchantability or fitness for a particular purpose. TIB further expressly disclaims any warranty or representation to Authorised Users, or to any third party. TIB accepts no liability for loss suffered or incurred by the Sub-Licensee or Authorised Users as a result of their reliance on the Licensed Work.
- 11.4 TIB reserves the right to change the content, presentation, user facilities or availability of parts of the Licensed Material (including removal of an entire journal on ceasing to have the right to publish it) and to make changes in any software used to make the Licensed Material available at their sole discretion. TIB will notify the Sub-Licensees of any substantial change to the Licensed Material.
- 11.5 In no circumstances will TIB be liable to the Sub-Licensee for any loss resulting from a cause over which TIB does not have direct control, including but not limited to failure of electronic or mechanical equipment or communication lines, telephone or other interconnect problems, unauthorised access, theft, or operator errors.
- 11.6 Nothing in this Sub-Licence shall make Sub-Licensee liable for breach of the terms of this Sub-Licence by any Authorised User provided that the Sub-Licensee did not cause, knowingly assist or condone the continuation of such breach after becoming aware of a an actual breach having occurred.
- 11.7 To the extent permitted by law, TIB shall not be liable to the Sub-Licensee for any loss or damage including any loss of profits, goodwill, contract or any indirect or consequential loss including loss or damage suffered by the Sub-Licensee as a result of an action brought by a third party.
- 11.8 No party limits its liability for (i) death or personal injury to the extent it results from its negligence, or of its employees or agents in the course of their engagement; and (ii) its own fraud or that of its employees or agents in the course of their engagement.

11.9 The Sub-Licensee agrees to notify TIB and IOPP promptly and provide full particulars in the event that it becomes aware of any actual, suspected or threatened claims by any third party in connection with works contained in the Licensed Material and do all things reasonably required to assist TIB and IOPP in such claims. It is expressly agreed that upon such notification, or if TIB becomes aware of such a claim from other sources, TIB may remove such work(s) from the Licensed Material. Failure to report knowledge of any actual or threatened claim by any third party shall be deemed a material breach of this Agreement. At the request of TIB or IOPP, the Sub-Licensee will make all reasonable efforts to remove such work(s) from any copies of the Licensed Material maintained by the Sub-Licensee.

11.10 The Sub-Licensee represents to TIB that its computer system through which the Licensed Material will be used is configured, and procedures are in place, to prohibit access to the Licensed Material by any person other than an Authorised User; that it shall inform Authorised Users about the conditions of use of the Licensed Material; and that during the term of this Sub-Licence, the Sub-Licensee will continue to make all reasonable efforts to bar non-permitted access and to convey appropriate use information to its Authorised Users.

12. FORCE MAJEURE

- 12.1 Either party's failure to perform any term or condition of this Agreement as result of circumstances beyond the control of the relevant party (including without limitation, war, strikes, flood, governmental restrictions, and power, telecommunications or Internet failures, failures in hardware, firmware or third party software, power failure, operation administration and maintenance activities by third parties, or damages to or destruction of any network facilities ["Force Majeure"]) shall not be deemed to be, or to give rise to, a breach of this Agreement.
- 12.2 If either party to this Agreement is prevented or delayed in the performance of any of its obligations under this Agreement by Force Majeure and if such party gives written notice thereof to the other party specifying the matters constituting Force Majeure together with such evidence as it reasonably can give and specifying the period for which it is estimated that such prevention or delay will continue, then the party in question shall be excused the performance or the punctual performance as the case may be as from the date of such notice for so long as such cause of prevention or delay shall continue.

13. ASSIGNMENT

Neither this Sub-Licence nor any of the rights under it may be assigned or sub-licensed by either party.

14. GOVERNING LAW AND DISPUTE RESOLUTION

- 14.1 The parties agree to use best efforts to resolve disputes in an informal manner, by decision of the person responsible for library services at the Sub-Licensee and the Director of TIB. Where the parties agree that a dispute arising out or in connection with this Agreement would best be resolved by the decision of an expert, they will agree upon the nature of the expert required and together appoint a suitable expert by agreement.
- 14.2 Any person to whom a reference is made under Clause 14.1 shall act as expert and not as an arbitrator and his decision (which shall be given by him in writing and shall state the reasons for his decision) shall be final and binding on the parties except in the case of manifest error or fraud.
- 14.3 Each party shall provide the expert with such information and documentation as he may reasonably require for the purposes of his decision.
- 14.4 The costs of the expert shall be borne by the parties in such proportions as the expert may determine to be fair and reasonable in all circumstances or, if no determination is made by the expert, by the parties in equal proportions.

15. NOTICES

15.1 All notices required to be given under this Agreement shall be given in writing in English and sent by courier to the relevant addressee at its address set out below, or to such other address as may be notified by either party to the other from time to time under this Agreement, copied to IOP Publishing Limited, and all such notices shall be deemed to have been received three days after despatch in the case of despatch by courier:

if to the Sub-License:e [insert details]

if to TIB Technische Informationsbibliothek

Justitiariat / TIB-Lizenzen

Welfengarten 1B D - 30167 Hannover

Germany

cc IOP Publishing FAO Group Legal Adviser Dirac House Temple Back Bristol BS1 6BE England

16. GENERAL

- 16.1 This Sub-Licence and its Schedules constitute the entire agreement between the parties relating to the Licensed Material and supersede all prior communications, understandings and agreements (whether written or oral) relating to its subject matter and may not be amended or modified except by agreement of both parties in writing.
- 16.2 The Schedules shall have the same force and effect as if expressly set in the body of this Sub-Licence and any reference to this Sub-Licence shall include the Schedules.
- 16.3 The invalidity or unenforceability of any provision of this Sub-Licence shall not affect the continuation in force of the remainder of this Sub-Licence.
- 16.4 The rights of the parties arising under this Sub-Licence shall not be waived except in writing. Any waiver of any of a party's rights under this Sub-Licence or of any breach of this Sub-Licence by the other party shall not be construed as a waiver of any other rights or of any other or further breach. Failure by either party to exercise or enforce any rights conferred upon it by this Sub-Licence shall not be deemed to be a waiver of any such rights or operate so as to bar the exercise or enforcement thereof at any subsequent time or times.

SCHEDULE 1 - FEES AND PAYMENT TERMS

Licence Fee: None

Hosting Service Fee: None

SCHEDULE 2: LICENSED MATERIAL

The Licensed Material consists of the following from 1874 up to and including content published in 1995:

Journal title	ISSN	Full-text available back to
Classical and Quantum Gravity	0264-9381	1984 (vol 1)
Distributed Systems Engineering	0967- 1846	1994 (vol 1)
European Journal of Physics	0143-0807	1980 (vol 1)
Inverse Problems	0266-5611	1985 (vol 1)
Journal of High Energy Physics	1126-6708	1997 (vol 1)
Journal of Micromechanics and Microengineering	0960-1317	1991 (vol 1)
Journal of Optics (1977- 1998) (Now Journal of Optics A: Pure and Applied Optics (from 1999) Formed by Merger of Journal of Optics and Pure and Applied Optics: Journal of the European Optical Society Part A(1992-1998)) Formerly: Nouvelle Revue d'Optique (1973- 1976) Formerly also Nouvelle Revue d'Optique Appliquée (1970-1972)	0150-536X 1464-4258 0963-9659 0335-7368 0029-4780	1977 (vol 8) None in Archive 1992 (vol 1)_ 1973 (vol 4) 1970 (vol 1)
Journal of Physics A: Mathematical and General Physics (from 1975) Formerly: Journal of Physics A: Mathematical, Nuclear and General Physics (1973-1974) Formerly: Journal of Physics A: Proceedings of the Physical Society: General Physics (1968-1972)	0305-4470 0301-0015 0022-3689	1975 (vol 8) 1973 (vol 6) 1968 (vol 1)
Journal of Physics B: Atomic, Molecular and Optical Physics (from 1988) Formerly: Journal of Physics B: Atomic and Molecular Physics (1970-1987) Formerly: Journal of Physics B: Proceedings of the Physical Society: Atomic and Molecular Physics (1968-1969)	0953-4075 0022-3700 0368-3508	1988 (vol 21) 1970 (vol 1) 1968
Journal of Physics: Condensed Matter (from 1989) Formed by merger of Journal of Physics C: Solid State Physics (1970- 1988) Formerly: Journal of Physics C: Proceedings of the Physical Society: Solid State Physics (1968-1969) and Journal of Physics F: Metal Physics (1971- 1988)	0953-8984 0022-3719 0368-3516 0305-4608	1989 (vol 1) 1970 (vol 1) 1968 (vol 1) 1971

Journal of Physics D: Applied Physics Formerly British Journal of Applied Physics	0022-3727 0508-3443	1968 (vol 1) 1950 (vol 1)
Journal of Physics G: Nuclear and Particle Physics Formerly: Journal of Physics G: Nuclear Physics (1975-1988)	0954-3899 0305-4616	1989 (vol 15) 1975 (vol 1)
Journal of Radiological Protection Formerly: Journal of the Society for Radiological Protection (1981 - 1987)	0952- 4746 0260- 2814	1988 (vol 8) 1981 (vol 1)
Measurement Science and Technology Formerly: Journal of Physics E: Scientific Instruments (1968-1989) Formerly Journal of Scientific Instruments	0957-0233 0022-3735 0950-7671	1990 (vol 1) 1968 (vol 1) 1923 (vol 1)
Metrologia	0026-1394	1965
Modelling and Simulation in Materials Science and Engineering	0965-0393	1992/3 (vol 1)
Nanotechnology	0957-4484	1990 (vol 1)
Nonlinearity	0951-7715	1988 (vol 1)
Nuclear Fusion	0029-5515	1992 (vol 32)
Physics Education	0031-9120	1966 (vol 1)
Physics in Medicine and Biology	0031-9155	1956 (vol 1)
Physics in Technology Formerly: Review of Physics in Technology	0305-4624 0034-6683	1973 (vol 4) 1970 (vol 1)
Physiological Measurement Formerly Clinical Physics and Physiological Measurement (1980-1992)	0967-3334 0143-0815	1993 (vol 14) 1980 (vol 1)
Plasma Physics and Controlled Fusion Formerly: Plasma Physics (1967-1983) Formerly Journal of Nuclear Energy Part C, Plasma Physics, Accelerators, Thermonuclear Research (1959- 1966)	0741-3335 0032-1028 0741-3335	1984 (vol 26) 1967 (vol 9) 1959 (vol 1)
Plasma Sources Science and Technology	0963-0252	1992 (vol 1)

		
Proceedings of the Physical Society of London (1874-1925) Proceedings of the Physical Society (1926-1948) Proceedings of the Physical Society Section A (1949-1957) Proceedings of the Physical Society Section B (1949-1957) Proceedings of the Physical Society (1958-1967)	1478-7814 0959-5309 0370-1298 0370-1301 03701328	1874 1926 1949 1949 1958
Dockey (1750-1701)		
Quantum Optics: Journal of the European Optical Society Part B (1989-1994)	0954-8998	1989 (vol 1)
Reports on Progress in Physics	0034-4885	1934 (vol 1)
Semiconductor Science and Technology	0268-1242	1986 (vol 1)
Smart Materials and Structures	0964-1726	1992 (vol 1)
Superconductor Science and Technology	0953-2048	1988 (vol 1)
Transactions of the Optical Society (1899-1932)	1475-4878	1899 (vol 1)