Institute *of* **Physics** PUBLISHING

New Journal of Physics

njp.org

Professor Robert Brown
Editorial Director
Institute of Physics Publishing, UK

robert.brown@ioppublishing.co.uk www.iop.org

Introduction

- **Background to New Journal of Physics**
- **Current status of the Journal.**
- **Electronic-only refereeing**
- **What next?**

Institute of Physics PUBLISHING

New Journal of Physics - the beginning.

- **The idea for NJP was born in 1996.**
- **Partnership of IOP with the Deutsche Physikalische Gesellschaft (DPG) signed April 1998.**
- **Editorial Board in place by August 1998.**
- **First articles published on 18 Dec 1998.**

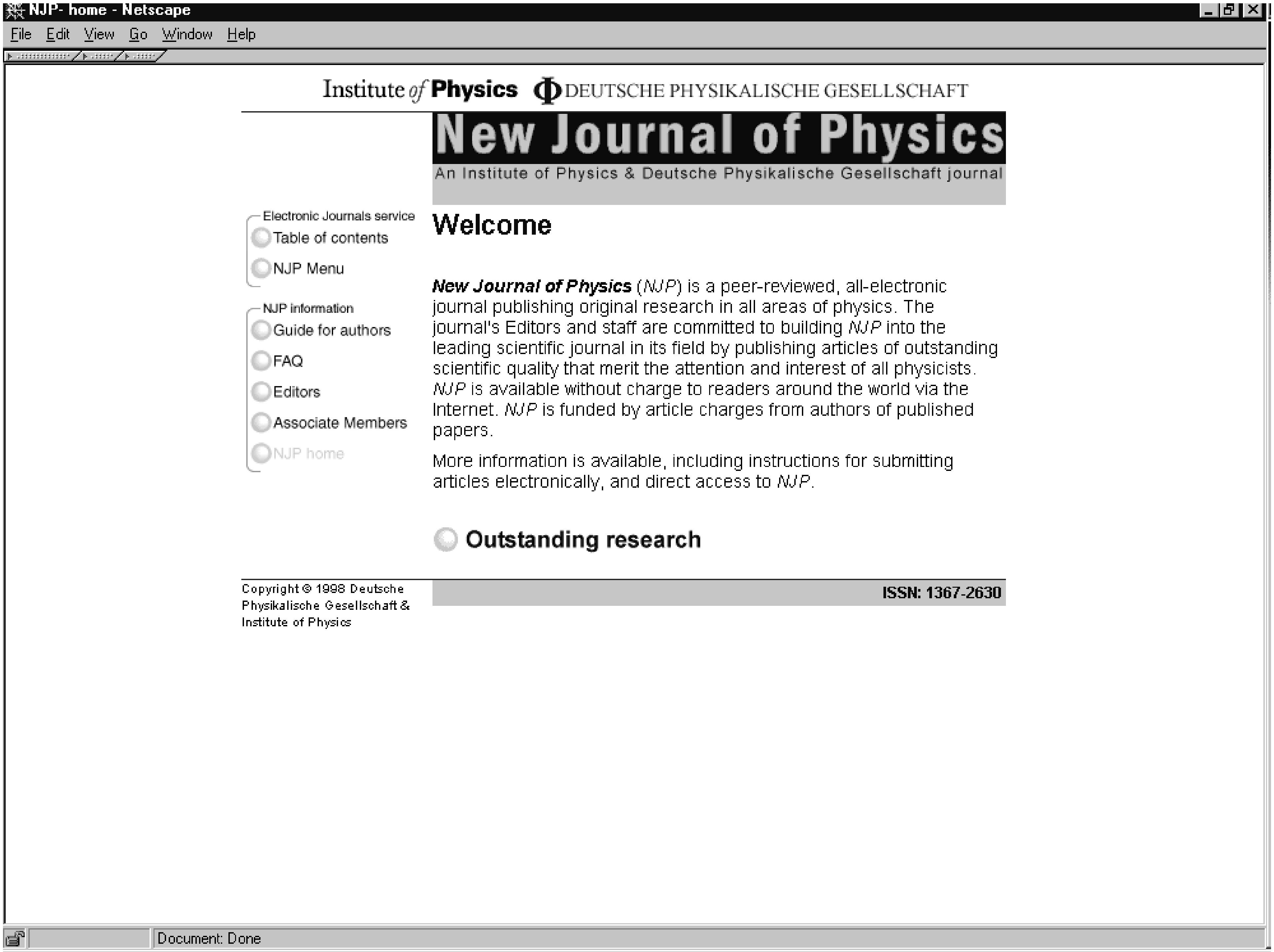
NJP: Key Features (I)

- **Editorial policy and Journal content:**
  - **scientific quality**
  - **broad coverage**
  - **high interest**

- **Web based - all electronic (njp.org)**
  - **submissions, peer review, proofs, web access**
  - **multimedia, additional data, colour photos**
  - **linking**
  - **articles published incrementally**
  - **full text in HTML and PDF**

NJP: Key Features (II)

- **Publishing model**
  - free to all readers
  - article charge ($500) for published authors
- **Partnership**
  - Institute of Physics and German Physical Society
  - Dutch, Polish, Australian and Swiss Physical Societies joined as Associates



NJP- home - Netscape

File Edit View Go Window Help

Institute *of* **Physics** DEUTSCHE PHYSIKALISCHE GESELLSCHAFT

New Journal of Physics

An Institute of Physics & Deutsche Physikalische Gesellschaft journal

Electronic Journals service
- Table of contents
- NJP Menu

NJP information
- Guide for authors
- FAQ
- Editors
- Associate Members
- NJP home

Welcome

New Journal of Physics (*NJP*) is a peer-reviewed, all-electronic journal publishing original research in all areas of physics. The journal's Editors and staff are committed to building *NJP* into the leading scientific journal in its field by publishing articles of outstanding scientific quality that merit the attention and interest of all physicists. *NJP* is available without charge to readers around the world via the Internet. *NJP* is funded by article charges from authors of published papers.

More information is available, including instructions for submitting articles electronically, and direct access to *NJP*.

Outstanding research

ISSN: 1367-2630

Document: Done

Volume 1, 1998-1999

Near-threshold electron impact dissociation of H₂ within the adiabatic nuclei approximati - Netscape

File Edit View Go Window Help

Back Forward Reload Home Search Guide Print Security Stop

NJP Institute *of* **Physics** DEUTSCHE PHYSIKALISCHE GESELLSCHAFT

Search All EJs | Search NJP | Search Volume | Guide for authors

Main EJ Menu | NJP Menu | Contents | Return to Abstract | Filing Cabinet | Online Help

[Previous Article] [Next Article]

New J. Phys. **1** (December 1998) 2
PII: S1367-2630(98)97147-6

Near-threshold electron impact dissociation of H_2 within the adiabatic nuclei approximation

Darian T Stibbe†‡ and Jonathan Tennyson†
† Department of Physics and Astronomy, University College London, London WC1E 6BT, UK
‡ NASA Ames Research Center, Moffett Field, CA 94035, USA
E-mail: darian.stibbe@ppm.u-psud.fr

Received 4 August 1998; online 17 December 1998

Abstract. At low energies, the major pathway for the electron-impact dissociation of $H_2(e + H_2 \rightarrow H(1s) + H(1s) + e)$ is through excitation to the $b\,^3\Sigma_u^+$ dissociative state. We present *ab initio* calculations of the rate of dissociation as a function of initial vibrational level. The calculations employ an extension to the adiabatic nuclei approximation, balancing the energy between the electrons and the nuclei, for excitation to a dissociation continuum. We find that near-threshold rates show so strong a dependence on the initial H_2 vibrational level that the common practice of approximating the total dissociation rate to the $v = 0$ rate is invalid in many situations.

Article Options:

HTML (34KB)

Acrobat PDF (249KB)

References - including HyperCite^{TM} links

Multimedia Enhancements

Document: Done

Current Status of NJP

- **SPARC endorsement in 1999**
- **State of Utah acceptance and promotion**
- **83 Submissions to date**
  - 28 papers accepted and published online
  - 11 currently being reviewed, 2 accepted
  - 42 rejected as unsuitable for the Journal
  - 4th largest down-load Journal of IOPP

Current Status of NJP (29/Feb/00)

- Web access statistics
  - 56,823 hits to the TOC
  - 31,454 from registered sites
  - 25,369 from unregistered sites

  - 14,397 PDF full text download
  - 6,508 from unregistered sites
  - 7,889 from registered sites

  - 19,019 HTML full text download
  - 6,916 from unregistered sites
  - 12,103 from registered sites

A few concerns

- **Computer incompatibility**
  - File formats and size of files
- **How to get information to referees without hitting information overload.**
- **How to communicate the success to authors...**
- **Access to web site**

Feedback from physicists...

- **Positive feedback from referees…**

“Yes I like the refereeing procedure this way. Yes. Yes. Yes.”

“…viewing the images on the computer is an improvement because of the better resolution and colours. The animated GIF files worked well and gave me an even better impression of the high quality work of Stone et al.”

What next?

- Aiming to publish at least 60 articles by December 2000
- Maintain the high visibility and high number of web accesses and downloads
- Continue to encourage authors to use the full potential of the Journal and include multimedia etc.
- Invoice authors - in progress

Reaction

- **Reaction from readers.**

"I got through... and quite liked the presentation of the online journal. I also hope that in the course of time more use of coloured and animated figures and hypertext will be made by the authors. ...the new possibilities of an online journal are certainly tempting. I offer my services as a referee, in case you should need them!"

"A free journal - excellent news!"

And finally ...

- **Please visit njp.org and see for yourself**
- **Thank you for listening**

- **robert.brown@ioppublishing.co.uk**