

NORAD-ATOMIC-DATA
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Citations of NORAD-Atomic-Data:

NORAD-Atomic-Data citation references

(Some collected references)

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1. Web pages links to NORAD-Atomic-Data page
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v) IAU Comission 14 Atomic and Molecular Data webpage:
http://www.inasan.ru/iau14/links2012_2015.html

iv) cfa-Harvard web page:
<http://www.cfa.harvard.edu/amp/ampdata/databases.html>

iii) International Atomic Energy Agency (IAEA):
<http://www-amdis.iaea.org/databases.php>

ii) Controlled Fusion Atomic Data Center (CFADC) at Oak Ridge National Lab:
<http://www-cfadc.phy.ornl.gov/databases.html>

i) "Solar Radiation Physical Modeling (SRPM)" Supported by: J.M. Fontenla
http://www.digidyna.com/SRPMv2/atomicdata/indexsrpm_atomicdata.html

The SRPM system includes a set of tools and data for modeling the production of solar radiation.

The following links point to some data currently used in SRPM:

NIST levels/lines data, CHIANTI various data

TOPBASE photoionization/various data

NORAD-Atomic-Data various data

UGAMOP molecular data, Current SRPM atomic models

2. Citations and Use of Atomic Data References in Astronomy

o "Chromium: NLTE abundances in metal-poor stars and nucleosynthesis in the Galaxy", M. Bergemann and G. Cescutti, *A&A* 522, A9 (2010)

o "A Near-Infrared Template Derived from I Zw 1 for the Fe II Emission in Active Galaxies", A. Garcia-Rissmann, A. Rodriguez-Ardila, T.A.A. Sigut, A.K. Pradhan (*ApJ*, 2012, in press)

o "Electron Distribution in the Galactic Disk - Results From a Non-Equilibrium Ionization Model of the ISM", M. A. de Avillez^{1,3}? Ashish Asgekar², Dieter Breitschwerdt³ and Emanuele Spitoni¹, <http://arxiv.org/pdf/1204.1511.pdf>

o "On the nature of supernovae Ib and Ic", Luc Dessart,^{1,2} D. John Hillier,³ Chengdong Li,³ and Stan Woosley,⁴ *Mon. Not. R. Astron. Soc.* 000, 122 (2010)

o "Highly Excited Core Resonances in Photoionization of Fe xvii : Implications for Plasma Opacities", Sultana N. Nahar¹, Anil K. Pradhan¹, Guo-Xin Chen², Werner Eissner³, <http://arxiv.org/pdf/1104.2881.pdf>

o "Fano resonances in chromium photoionization spectra after photoinduced ejection from a superfluid helium nanodroplet", A Kautsch, M Hasewend, M Koch, WE Ernst - *Physical Review A*, 2012

o "Fe-peak element abundances in disk and halo stars", K Cunha, M Spite, B Barbuy - arXiv preprint arXiv:0910.3689, 2009

o "Ionization balance of Ti in the photospheres of the Sun and four late-type stars", M Bergemann - *Monthly Notices of the Royal Astronomical* , 2011

3. Citations and Use of Atomic Data References in Physics

i) Photoionization Experiments:

(e.g. ALS-Lawrence,
Synchrotron-University of Paris-Sud,
HESSR-Max Planck Institute,
Synchrotron-University of Aarhus)

o. "Photoionization of N³⁺ and Ar⁸⁺ in an electron beam ion trap by synchrotron radiation", M.C. Simon et al. *J. Phys. B: At. Mol. Opt. Phys.* 43 (2010) 065003

o. "Photoionization cross sections of O II, O III, O IV, and O V: Benchmarking R-matrix theory and experiments" by S.N. Nahar *PHYSICAL REVIEW A* 69, 042714 (2004)

o. "Measurements of the absolute photoionization cross section of Fe⁺ ions from 15.8 to 180 eV", Kjeldsen et al, *J. Phys. B: At. Mol. Opt. Phys.* 35 (2002) 36553668

ii) Electron-Ion Recombination Experiments:

(e.g. CRY-RING-Stockholm, TSR-Heidelberg)

- o. "Relativistic Fine Structure and Resonance Effects in Electron-Ion Recombination and Excitation of (e + CIV)", A.K. Pradhan, G.X. Chen, S.N. Nahar, H.L. Zhang, Phys.Rev.Lett 87, 183201 (2001)
- o. "UNIFIED ELECTRONIC RECOMBINATION OF Ne-LIKE Fe xvii: IMPLICATIONS FOR MODELING X-RAY PLASMAS", A.K. Pradhan, S.N. Nahar, H.L. Zhang, ApJL 549:L265L268, (2001),
- o. "Close-coupling R-matrix calculations for electronion recombination cross sections", H.L. Zhang, S.N. Nahar and A.K. Pradhan, J. Phys. B: At. Mol. Opt. Phys. 32 1459 (1999)

iii) Raditive transitions calculations: (e.g. Oscillator Strengths)

- o. "Oscillator strengths of allowed transitions for O III", . Ate, * G. elik, * G. Tekeli, * M. Taer, Atomic Data and Nuclear Data Tables, Volume 98, Issue 1, January 2012, Pages 118 <http://www.sciencedirect.com/science/article/pii/S0092640X11000465>
- o "Energy levels, radiative rates and electron impact excitation rates for transitions in Si XII, Si XIII and Si XIV", K. M Aggarwal and F. P Keenan, Phys. Scr. 82 (2010) 065302
- o "E1 transitions among the levels of the 3d5, 3d44s and 3d44p configurations in Fe IV", Narayan C Deb and Alan Hibbert, Journal of Physics B: Atomic, Molecular and Optical Physics 41 (8) 081007 (2008)
- o "DIVISION XII / COMMISSION 14 / WORKING GROUP ATOMIC DATA", Gillian Nave, Glenn M. Wahlgren and Jeffrey R. Fuhr, Proceedings of the International Astronomical Union 4 (T27A) 375 (2008)
- o "Electric-dipole allowed and intercombination transitions among the 3d5, 3d44s and 3d44p levels of Fe IV", Narayan C. Deb and Alan Hibbert Atomic Data and Nuclear Data Tables 96 (4) 358 (2010)
- o "Multiconfiguration Dirac-Hartree-Fock energy levels and transition probabilities for 3d5in Feiv", C. Froese Fischer, R. H. Rubin and M. Rodrguez Monthly Notices of the Royal Astronomical Society 391 (4) 1828 (2008)
- o "Electric dipole transitions among low lying levels of Fe IV", A Hibbert and N C Deb ,Journal of Physics: Conference Series 130 012012 (2008)

iv) Electron-Impact Collision Strengths Experiments

- o. "Relativistic Fine Structure and Resonance Effects in Electron-Ion Recombination and Excitation of (e + CIV)", A.K. Pradhan, G.X. Chen, S.N. Nahar, H.L. Zhang, Phys.Rev.Lett 87, 183201 (2001)

4. Citations and Use of Atomic Data References in Engineering

i) Mechanical engineering problem:

o "Calculation of net emission coefficient of electrical discharge machining arc plasmas in mixtures of nitrogen with graphite, copper and tungsten", V R Adineh¹, O Coufal² and M Bartlova², J. Phys. D: Appl. Phys. 48 (2015) 405202 (13pp)

o "Thermodynamic and radiative properties of plasma excited in EDM process through N₂ taking into account Fe 1,*V.R. Adineh, O. Coufal, O. ivn, Transactions on Plasma Science 40, No. 10, 2723-2725 (2012)

o. "Radiative Heat Loss of Electrical Discharge Machining Process Through Hydrocarbon Oil and Deionized Water 4 Dielectric Liquids", V. R. Adineh, Plasma Chem Plasma Process DOI 10.1007/s11090-012-9351-6 (2012, Springer)

o. "Net Emission Coefficient of Plasma Excited in the Electrical Discharge Machining Through Liquid Nitrogen Dielectric Medium", VahidReza Adineh, IEEE TRANSACTIONS ON PLASMA SCIENCE, DOI: 10.1109/TPS.2011.2182061 (2012)

o. "The effect of laser wavelength on heating of ablated carbon plume", J. Hoffman, T. Moscicki and Z. Szymanski, Applied Physics A: Materials Science & Processing Volume 104, Number 3, 815-819 (2011) From the issue entitled "Photo-Excited Processes and Applications"

o. "Emission coefficients of low temperature thermal iron plasma", T. Moscicki, J. Hoffman, Z. Szymanski, Czechoslovak Journal of Physics, Vol. 54 (2004), Suppl. C, C677 (authors: Institute of Fundamental Technological Research, Warszawa, Poland)

0. "Net emission coefficients of low temperature thermal iron-helium plasma", TOMASZ MOSCICKI, JACEK HOFFMAN, ZYGMUNT SZYMANSKI, Optica Applicata, Vol. XXXVIII, No. 2, 2008

5. Citations and Use of Atomic Data References in Books and Reviews

o "AtomPy: An Open Atomic Data Curation Environment for Astrophysical Applications", C. Mendoza 1;2, Josiah S. Boswell 3, David C. Ajoku 4 and M. A. Bautista, Atoms 2014, 2, 123-156

o. "Atomic Astrophysics and Spectroscopy" (Cambridge, 2011)

o. "Atomic data activities by the OP and IP consortia: past, present and new perspectives within the VAMDC", Mendoza, Claudio; Nez, Luis A. FSICA, Acta Cientifica Venezolana, 60 (4): 171-195, 2009 <http://amv.ivic.ve/60-4/171.pdf>