

BIBLIOGRAPHY (1966–2017/18)
OF ACAD. RATKO K. JANEV

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LIST OF PUBLICATIONS

Summary:

- A) Monographs, edited books/journal volumes, compendia: 15
- B) Chapters in books: 12
- C) Review articles, invited papers: 27
- D) Articles in refereed journals: 301
- E) Invited talks at international conferences: 35

Detailed list of publications

A. Monographs, Edited Books, Compendia

(i) Monographs

1. R.K. Janev
Atomic Physics, Vols. 1 and 2
University Press, Skopje (1972) (in Macedonian)
2. R.K. Janev, L.P. Presnyakov, V.P. Shevelko
Physics of Highly Charged Ions.
Springer-Verlag, Berlin-Heidelberg (1985)
3. L.P. Presnyakov, V.P. Shevelko, R.K. Janev
Elementary Processes Involving Multiply Charged Ions.
Energoatom Izdat, Moscow (1986), (in Russian)
4. R.K. Janev, W.D. Langer, K. Evans, D.E. Post Elementary Processes in
Hydrogen-Helium Plasmas. Springer-Verlag, Berlin-Heidelberg (1987)
5. V.I. Lend'el, V.Yu. Lazur, M.L. Karbovanets, R.K. Janev
Introduction to the Theory of Atomic Collisions.
Vysshaya shkola, L'vov (1989), (in Russian)
6. R.K. Janev
Controlled Thermonuclear Fusion.
Institute of Physics, Belgrade (1989) (in Serbo-Croatian)
7. R.K. Janev, Lj. Petkovski
Atomic Physics.
Macedonian Academy of Sciences and Arts, Skopje (2012) (in Macedonian).

(ii) Edited Books

8. R.K. Janev (ed)
Physics of Ionized Gases.
(Invited Lectures and Progress Reports of SPIG'78)
Nauka i društvo, Beograd (1978)
9. R.K. Janev, H.W. Drawin (eds.) Atomic and Plasma-Material Interaction
Processes in Controlled Thermonuclear Fusion.
Elsevier Publ. Co., Amsterdam (1993)
10. R.K. Janev (ed.) Atomic and Molecular Processes in Fusion Edge Plasmas.
Plenum Publ. Corp., New York (1995)

(iii) Guest Editor for international journal volumes

11. Physica Scripta, Topical issue, vol. T 37 (1991):
"Collision Processes of Metallic Ions in Fusion Plasmas"
12. Physica Scripta, Topical issue, vol. T 62 (1996):
"Collision Processes of Be and B Atoms and Ions in Fusion Plasmas"
13. Physica Scripta, Topical issue, vol. T 96 (2002):
"Atomic and Molecular Processes in Divertor Plasma
Volume Recombination" (with D.R. Schultz as co-editor)

(iv) Compendia

14. R.A. Phaneuf, R.K. Janev, M.S. Pindzola
Atomic Data for Fusion, Vol. 5: Collisions of Carbon and Oxygen Ions with
Electrons, H, H₂ and He
Oak Ridge National Laboratory, ORNL-6090, Oak Ridge, Tennessee (1987)
15. R.K. Janev, J.J. Smith
Cross Sections for Collision Processes of Hydrogen Atoms with Electrons,
Protons and Multiply Charged Ions.
At. Plasma-Mat. Inter. Data Fusion, vol. 4, IAEA, Vienna (1993). R.K. Janev, D.E.

B. Chapters in Books

1. R.K. Janev, D.E. Post
Atomic physics aspects of particle transport in fusion plasmas.
In: "Physics of Ionized Gases", Ed. M.M. Popovic (World Sci. Publ. Co., Singapore, 1985) p. 201
2. R.K. Janev Theory of charge exchange and ionization in ion-atom (ion) collisions.
In: "Atomic Processes in Electron-Ion and Ion-Ion Collisions",
Ed. F. Brouillard, (Plenum Press, New York, 1986) p. 239
3. R.K. Janev, P.S. Krstic
Dynamical processes involving quasi-stationary states.
In: "Spectroscopy and Collisions of Few-Electron Ions"
Eds. V. Zoran et al., (World Scientific Inc., Singapore, 1989) p. 317
4. R.K. Janev
Atomic processes in thermonuclear fusion plasmas.
in: "Review of Fundamental Processes and Applications of Atoms and Ions",
Ed. C.D. Lin (World Scientific Publ. Co., Singapore, 1993) p. 1
5. R.K. Janev
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In: "Atomic and Plasma-Material Interaction Processes in Controlled Thermonuclear Fusion",
Eds. R.K. Janev and H.W. Drawin (Elsevier, Amsterdam, 1993) p. 27
6. R.A. Phaneuf, R.K. Janev
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7. R.K. Janev
Basic properties of fusion edge plasmas and role of atomic and molecular processes.
In: "Atomic and Molecular Processes in Magnetic Fusion Edge Plasmas",
Ed. R.K. Janev (Plenum Press, New York, 1995) p. 1
8. R.K. Janev, H.P. Winter, W. Fritsch
Electron transfer processes in slow collisions of H, He and H₂ with plasma impurity ions. In: "Atomic and Molecular Processes in Magnetic Fusion Edge Plasmas",
Ed. R.K. Janev (Plenum Press, New York, 1995) p. 341
9. F. Linder, R.K. Janev, J. Botero
Reactive ion-molecule collisions involving hydrogen and helium.
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10. R.K. Janev
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11. R.K. Janev
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C. Review Articles, Invited Papers

1. R.K. Janev
Modern methods in the theory of heavy particle collisions.
In: "Physics of Ionized Gases", (Inv. Lectures of IV Yugoslav
Symp. Phys. Ioniz. Gases) Ed. B. Perovic, Beograd, 1969, p.133
2. R.K. Janev
Non-adiabatic transitions between ionic and covalent states.
In: Adv. Atom. Mol. Phys. 12, 1 (1976)
3. R.K. Janev
Atomic and molecular processes involving ionic-covalent nonadiabatic coupling.
In: "Physics of Ionized Gases", (Inv. lectures and progress reports of SPIG-78),
Ed. R.K. Janev, Beograd, 1978, p. 171
4. R.K. Janev, T.P. Grozdanov
Charge-exchange processes in atom-multicharged ion collisions.
In: "Physics of Ionized Gases", (Inv. lectures and progress reports of SPIG-80),
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5. R.K. Janev, L.P. Presnyakov
Collision processes of multiply charged ions with atoms.
Phys. Rep. 70, 1 (1981)
6. B.H. Bransden, R.K. Janev
Electron capture in collisions of hydrogen atoms with fully stripped ions.
In: Adv. At. Mol. Phys. 19, 1 (1983)
7. R.K. Janev
Excited states created in charge transfer collisions between atoms and
highly charged ions.
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8. R.K. Janev
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In: "Atomic Collision Processes with Multiply Charged Ions", Ed. B. Perovic (B. Kidrich Inst. of Nucl. Sciences, Belgrade, 1983), p. 37
9. L.P. Presnyakov, R.K. Janev
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10. R.K. Janev, H. Winter
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11. M.I. Chibisov, R.K. Janev
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12. R.K. Janev
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In: J. de Physique (Paris) Coll. C1, T. 50, C1-421 (1989)
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14. R.K. Janev
Atomic and molecular processes in fusion plasmas.
In: Proc. Int. Symp. on Atomic and Molecular processes in Fusion Plasmas; Ed. H. Tawara, NIFS-DATA-Series 39, 3 (1996)
15. R.K. Janev
Hidden crossing approach to inner-shell processes in ion-atom collisions.
In: Nucl. Instruments & Methods, Phys. Res. B 124, 290 (1997)
16. R.K. Janev, E.A. Solov'ev
Application of hidden crossing theory to positron-hydrogen atom collisions.
In: Physics of Electronic and Atomic Collisions (Inv. lectures and progr. reports of XX Int. Conf. Physics of Electronic and Atomic Collisions), Eds. F. Aumayr, HP. Winter (World Scientific, Singapore, 1998) p. 393.
17. R.K. Janev
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In: Contrib. Plasma Physics 38, 307 (1998)
18. R.K. Janev, K.H. Becker, R.E.H. Clark, G. Lister, K. Niemax
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In: Dissociative Recombination IV: Theory, Experiment, Applications, Eds.:M.Larson et al., (World Scientific, Singapore, 2000) p. 245.
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21. R.K.Janev
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In: Proc. Internat. Symp. Electr.-Mol.Collisions and Swarms, Eds. I. Fabrikant et al., (Univ.Nebraska, Lincoln,2001), p.49.
22. R.Celiberto, A.Laricchiuta, R.K.Janev
Cross section data for hydrogen plasma applications.
In: "Atomic and molecular data and their applications".
Eds. D.R.Schultz et al. (AIP Conf. Proceedings Series, Vol. 636, 2002) p. 277
23. R.K.Janev
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24. D.Reiter, M.Baeva, O.Marchuk. R.K.Janev
The role of atomic and molecular processes in magnetic fusion plasmas.
In: "Atomic and molecular data and their applications",
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25. L.Ling, Y.Y.Qi, J.G.Wang, R.K.Janev
Debye plasma effects on atomic structure and dynamics.
In: "Atomic and molecular data and their applications",
Eds. S.P. Zhu, J. Yan (AIP Conf. Proc. Series, Vol. 1125, 2008) p.58.
26. R.Celiberto, I.Armenise, M.Cacciatore, M.Capitelli, P.Gamallo, R.K.Janev et al.
Atomic and molecular data for spacecraft re-entry plasmas.
In: Plasma Sources Sci. Technol. 25 (3), 033004 (2016), Available at (URL):
<http://iopscience.iop.org/article/10.1088/0963-0252/25/3/033004/meta#artAbst>
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A review of quantum collision processes in Debye plasmas.
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<http://www.sciencedirect.com/science/article/pii/S2468080X16300760> ;
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D. Articles in Refereed Journals

1. I.V. Komarov, R.K. Janev
Molecular term splitting by two-electron exchange.
In: Zh. Eksp. Teor. Fiz. 51, 1712 (1966) (Sov. Phys.-JETP, 24, 1259, 1967)
2. R.K. Janev
Resonant charge exchange in H - H collisions.
In: Ann. (Vestnik) Leningrad State Univ. 22, 61 (1967) (in Russian)
3. R.K. Janev
A model for double nonresonant charge exchange.
In: Zh. Eksp. Teor. Fiz. 52, 1221 (1967) (Sov. Phys. JETP 25, 812, 1967)
4. G.V. Dubrovskii, V.D. Ob'edkov, R.K. Janev
Dissociative electron attachment on molecules and estimation of the width of quasi-stationary states.
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The mobility of doubly charged ions in their parent gases.
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6. R.K. Janev
Coupling of direct and exchange scattering in slow ion-atom collisions.
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9. D.M. Davidovic, R.K. Janev
Resonant charge-exchange of negative ions in slow collisions with atoms.
In: Phys. Rev. 186, (No. 1), 89 (1969)
10. S.S. Pesic, R.K. Janev, D.M. Davidovic
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In: Phys. Rev. 186, 95 (1969)
11. R.K. Janev, V.D. Ob'edkov
Evaluation of the electron affinity of Li by using an integral identity for the energy.
In: Fizika 1, 233 (1969)
12. R.K. Janev, S.S. Pesic
On the behavior of low-energy inelastic cross section for atomic reactions.
In: J. Phys. B: 3, 369 (1970)

13. R.K. Janev, D.M. Davidovic, A.R. Tancic
A simple model for Penning ionization.
In: Fizika 2, 165 (1970)
14. R.K. Janev, V.D. Ob'edkov
Adiabatic representation for the exchange inelastic electron-atom amplitude.
In: Phys. Letts. 31A, 578 (1970)
15. R.K. Janev, Dj. Zivanovic
A model for scattering of a particle on a bound system of particles.
In: Phys. Letts. 33A, 127 (1970)
16. R.K. Janev, A.R. Tancic
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In: J. Phys. B: 4, 219 (1971)
17. R.K. Janev
Atom-excited atom exchange interaction at large distances.
In: J. Phys. B: 4, 215 (1971)
18. D.M. Davidovic, R.K. Janev
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19. R.K. Janev, Dj. Zivanovic
The use of the Green's function method for scattering of a particle on a system of bound particles.
In: Fizika 3, 29 (1971)
20. R.K. Janev, A. Salin
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21. R.K. Janev, D.M. Davidovic, I.V. Terzic
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22. R.K. Janev, A. Salin
Faddeev-Lovelace equations in the eikonal approximation.
In: Annals of Physics (N.Y.) 73, 136 (1972)
23. R.K. Janev, A. Salin
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24. M.A. Burnashev, R.K. Janev, V.D. Ob'edkov
Inelastic e-H and e-He collisions in the adiabatic approximation.
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25. R.K. Janev, A. Salin
Electron capture from hydrogen negative ions by fast protons.
In: Fizika 4, 165 (1972)
26. R.K. Janev, Dz. S. Belkic
Muonium formation in slow collisions of positive mesons with hydrogen atoms.
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27. R.K. Janev, A.R. Tancic
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28. G.F. Drukarev, V.D. Ob'edkov, R.K. Janev
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- Interaction of atomic particles with solid surfaces: V. Auger de-excitation of metastable atoms.
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E. Invited Talks at International Conferences

1. Modern methods in the theory of heavy particle collisions. IV SPIG, Herceg-Novci, 1968 (published, see C. 1)
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