

## LIST OF PUBLICATIONS: Dževad Belkić

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- Books and Book Series**

**Belkić Dž.** *Principles of Quantum Scattering Theory* (Institute of Physics Publishing, Bristol, 2004) ISBN 0750304960 (now with Taylor & Francis Group via CRC Press, eBook ISBN 9780429146497)

**Belkić Dž.** *Quantum Mechanical Signal Processing and Spectral Analysis* (Institute of Physics Publishing, Bristol, 2005) ISBN 0750310197 (now with Taylor & Francis Group via CRC Press, eBook ISBN 9780429146534)

**Belkić Dž.** *Quantum Theory of High-Energy Ion-Atom Collisions* (Taylor & Francis Group via CRC Press, London, 2008) ISBN-13: 9781584887287, eBook ISBN 9780429136498

**Belkić Dž, Belkić K.** *Signal Processing in Magnetic Resonance Spectroscopy with Biomedical Applications* (Taylor & Francis Group via CRC Press, London, 2010) ISBN: 9781439806449, eBook ISBN 9780429130199

**Belkić Dž.** *Fast Ion-Atom and Ion-Molecule Collisions -- Interdisciplinary Research Series on Particle Collisions and Quantitative Spectroscopy – Vol. 1* (World Scientific Publishers, Singapore, 2013) ISBN: 9789814407120 eBook ISBN 9789814407144

**Belkić Dž, Belkić K.** *Magnetic Resonance Imaging and Spectroscopy – Vol. 3 of the Comprehensive Biomedical Physics* (Elsevier Publishers, Amsterdam, 2014) ISBN: 9780444536327, eBook ISBN: 9780444536334

**Belkić Dž, Bray I, Kadyrov A.** *Reviews of Ion-Atom and ion-molecule collisions: Theory and Experiment.* Interdisciplinary Research Series on Particle Collisions and Quantitative Spectroscopy –Vol. 2 (World Scientific Publishers, Singapore, 2019) ISBN: ISBN 13: 978-9811211607

- Book chapters**

Jones A, **Belkić Dž**, Däppen W, Lin C-H, Taylor H. Application of the filter diagonal spectral estimator in helioseismology, In: Korzenik SG, Wilson A (eds.). *Structure and Dynamics of the Interior of the Sun and Sun-like Stars* (ESA Publications Division, Noordwijk, 1998) pp. 249-252

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**Belkić Dž, Mančev I, Milojević N.** Critical assessment of theoretical methods for collisions between lithium nuclei with helium at intermediate and high impact energies. In: Belkić Dž (ed.). *Fast Ion-Atom and Ion-Molecule Collisions* (World Scientific Publishers, Singapore, 2012) pp. 189–229

**Belkić Dž.** Mathematically-optimized MR. In: Belkić Dž, Belkić K (eds.). *Magnetic Resonance Imaging and Spectroscopy -- Vol. 3 of the Comprehensive Biomedical Physics* (Elsevier Publishers, Amsterdam, 2014) pp. 399-416

Williams S, **Belkić Dž, Belkić K.** Potential and Obstacles of MRS in the Clinical Setting. In: Belkić Dž, Belkić K (eds.). *Magnetic Resonance Imaging and Spectroscopy -- Vol. 3 of the Comprehensive Biomedical Physics* (Elsevier Publishers, Amsterdam, 2014) pp. 315-329

**Belkić Dž.** Theory of heavy-ion collision physics for hadron therapy. In: Belkić Dž, Bray I, Kadyrov A (eds.). *Reviews of Ion-Atom and Ion-Molecule Collisions: Theory and Experiment.* Book Series Interdisciplinary Research Series on Particle Collisions and Quantitative Spectroscopy, Vol. 2, World Scientific Publishers, Singapore, 2019) pp.285-336

## • Articles published in peer-reviewed scientific journals

### 2021

**Belkić Dž.** Single charge exchange in collisions of energetic nuclei with biomolecules of interest to ion therapy. *Zeitschrift für Medizinische Physik* 2021; 31 (2): 122–144 [Open access: doi.org/10.1016/j.zemedi.2020.07.003](https://doi.org/10.1016/j.zemedi.2020.07.003)

**Belkić Dž.** One electron-capture in collisions of fast nuclei with biomolecules of relevance to ion therapy. *Advances in Quantum Chemistry* 2021; 84: 267-345 [doi.org/10.1016/bs.aiq.2021.03.001](https://doi.org/10.1016/bs.aiq.2021.03.001)

**Belkić Dž, Belkić K.** Derivative NMR spectroscopy for J-coupled multiplet resonances using short time signals (0.5KB) encoded at low magnetic field strengths (1.5T). Part I: Water suppressed. *Journal of Mathematical Chemistry* 2021; 59 (2): 364-404 [Open access doi.org/10.1007/s10910-020-01198-z](https://doi.org/10.1007/s10910-020-01198-z)

**Belkić Dž, Belkić K.** Derivative NMR spectroscopy for J-coupled multiplet resonances using short time signals (0.5KB) encoded at low magnetic field strengths (1.5T). Part II: Water unsuppressed. *Journal of Mathematical Chemistry* 2021; 59 (2): 405-443 [Open access doi.org/10.1007/s10910-020-01199-y](https://doi.org/10.1007/s10910-020-01199-y)

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**Belkić Dž, Belkić K.** In vivo derivative NMR spectroscopy for simultaneous improvements of resolution and signal-to-noise ratio: Case study, glioma. *Journal of Mathematical Chemistry* 2021; 5 (9): 2133–2178 [Open access doi.org/10.1007/s10910-021-01280-0](https://doi.org/10.1007/s10910-021-01280-0)

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Delibašić D, Milojević N, Mančev I, **Belkić Dž.** Electron transfer from atomic hydrogen to multiply-charged nuclei at intermediate and high energies. *Atomic Data and Nuclear Data Tables* 2021 (May); 139: 101417 [doi.org/10.1016/j.adt.2021.101417](https://doi.org/10.1016/j.adt.2021.101417)

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**Belkić Dž.** Total cross sections in five methods for two-electron capture by alpha particles from helium: CDW-4B, BDW-4B, BCIS-4B, CDW-EIS-4B and CB1-4B. *Journal of Mathematical Chemistry* 2020; 58 (6): 1133-1176 [Open access doi.org/10.1007/s10910-020-01123-4](https://doi.org/10.1007/s10910-020-01123-4)

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