

Abstract Submitted
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Dielectronic Recombination of Al-Like Sulfur¹ SH. A. ABDEL-NABY, D. NIKOLIĆ, T.W. GORCZYCA, Western Michigan University, N.R. BADNELL, University of Strathclyde, D.W. SAVIN, Columbia Astrophysics Laboratory — Accurate dielectronic recombination (DR) data are important for cosmic and laboratory plasma modeling. Over the past few years, our group has computed reliable DR data for all isoelectronic sequences up through Mg-like ions. Recently, we have focused our work on the complex third-row M-shell isoelectronic sequences. Al-like Fe^{13+} DR calculations have been completed and tested against Heidelberg heavy-ion Test Storage Ring facility measurements. We extend our efforts for Al-like systems to S^{3+} . Although previous calculations on S^{3+} exist, they were performed only within a non-relativistic LS-coupling approximation. Here we present DR rate coefficients for Al-like S^{3+} using the level-resolved, multi-configurational, distorted-wave AUTOSTRUCTURE package. In order to describe the S^{3+} target accurately, we extended the basis configurations previously used in Al-like Fe^{13+} . New results will be presented, and comparisons against available data will be shown.

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D. Nikolić
Western Michigan University

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