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Calculation of dielectronic recombination cross section For lithium-like Ni^{25+} ion-system using Flexible Atomic Code (FAC)

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In this study we used FAC code method to study the dielectronic recombination for three electron system of Lithium-like Ni^{25+}. The ground state configuration of Ni^{25+} is ($1s^2$ $2s_{1/2}$). This configuration has been implemented in the scripts of FAC code that follow the jj coupling scheme. Comparison between our calculations and experimental results for ground states of Ni^{25+} is made. Present calculations were performed for the energy of the resonances and their resonance strength in the excitation of 2s electron to 2p electron and with capturing the incident electron in shell with $n \geq 13$ up to $n = 19$. The energy positions have shown a good agreement with the experimental values, where the resonance strength shows some discrepancies in some of the resonances.

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