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IBM-2 Calculations of Selected Even-Even Palladium Nuclei

Ilyas İNCİ¹, Nurettin TÜRKAN²

¹Erciyes University, Institute of Science, 38039 Kayseri-TURKEY

e-mail: lyasnc@yahoo.co.uk

²Erciyes University, Yozgat Faculty of Arts and Science, 66100 Yozgat-TURKEY

e-mail: nurettin.turkan@yahoo.com

 [Keywords](#)
 [Authors](#)



phys@tubitak.gov.tr

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Abstract: In this study, we have employed the Interacting Boson Model-2 (IBM-2) to determine the most appropriate Hamiltonian for the study of palladium nuclei. Using the best fit values of parameters to construct the Hamiltonian, we have estimated energy levels and multipole mixing ratios (δ (E2/M1)) for some doubly-even Pd nuclei. The results are compared with previous experimental and theoretical data and it is observed that they are in good agreement.

Key Words: Palladium, electromagnetic transition, multipolarity, Interacting Boson Model-2 (IBM-2).

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