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Fine structure of E2 strength in one-proton-different nuclei from (p,p') experiments

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Abstract content
 (Max 300 words)

High energy-resolution studies of the Isoscalar Giant Quadrupole Resonance (ISGQR) from experiments exciting mainly E2 strengths have been carried out with the (p,p') reactions using the K600 magnetic spectrometer at iThemba LABS. A set of one-proton-different nuclei; ^{28}Si , ^{27}Al and ^{90}Zr , ^{89}Y have been investigated in order to understand the role of removing one proton in the corresponding 1p-1h excitation of the ISGQR due to the restricted configuration available in the extreme single-particle shell model. Comparison of the characteristic energy scales utilizing novel applications of wavelet techniques of semblance analysis will be discussed.

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