

# New least-squares adjustments of nuclear binding energies of atomic nuclei

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**Abstract** A new least-squares adjustment of binding energies of atomic nuclei based on the last updated atomic mass evaluation AME2016 has been considered. The new set of parameters of mass formula, obtained in this work, may reduce the relative error in binding energies when calculated in the framework of mass formula. A special treatment has been made for medium and heavy nuclei with atomic masses greater than 50.

**Keywords:** Mass formula, least-squares adjustments, AME2016, binding energy