

This is a review text file submitted electronically to MR.

**Reviewer:** Znojil, Miloslav

**Reviewer number:** 013388

**Address:**

Theory Group NPI  
250 68 Rez near Prague  
Czech Republic  
znojil@ujf.cas.cz

**Author:** This line will be completed by the MR staff.

**Short title:** This line will be completed by the MR staff.

**Control number:** 1747430

**Primary classification:** 15A18

**Secondary classification(s):** 81Q05 81R05 92E10

**Review text:**

A short paedagogical review of the subject, probably intended as an invitation to the recent study of anharmonic oscillator quantum models as published in between in *Annals of Physics* (cf. ref. [9]). Due to its fortunate matrix notation the text is easily readable. It offers a quick elementary introduction to the very modern and quickly developing subject - the theory and applications of exactly solvable models whose Hamiltonians are written in terms of creation and annihilation operators (for quick orientation, just look at eq. (43)). Their users in solid state physics and quantum chemistry (familiar with the Hueckel-like models etc) can find new inspiration (e.g., in the emphasized relationship of these models to graph theory or representation theory) and will appreciate the display of several explicit formulae for eigenstates and their energies.