Papers in Journals

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- **Soft corrugated potential model**
  Thermal energy atomic scattering (TEAS) is discussed within the soft corrugated interaction potential by perturbation theory. Inverse scattering problem is also discussed [1].

- **Hard corrugated wall model**
  A solution method of hard corrugated wall model (HCW) - so called GR method - is improved . The stability and convergence is developed [3]. Inverse scattering problem is discussed by improved GR method [2][4]. The surface structure symmetry is considered at the computation. The computation time decreased to 2% in the best cases [5]. A special inverse scattering method has been developed. The intensity distribution and the Debye-Waller factor are fitted to the experimental result of He-LiF scattering in the same time. The Debye-Waller factors depend on the open channel, the scattering direction [6]

- **Wave packet model**
  Thermal energy atomic scattering is investigated by wave packet model. The independent atomic ensemble is described by an approriate Gaussian wave packet. The time dependent Schroedinger equation is solved by split operator method numerically. Transfer width and resolution [7], periodical and stepped surface [8], computer simulation and animation [9] and the comparison of classical and quantum He scattering [10] are discussed in the case of TEAS. A topical review of Time Dependent Wave Packet method can be read in [11].

- **References**

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