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On x-ray scattering by solitons in systems of adsorbed atoms
IRINA BARIAKHTAR, Boston College, VICTOR BARYAKHTAR, Institute of
Magnetism, Kiev, Ukraine — The cross section for scattering of x-rays by soli-
tons is calculated. The authors consider solitons corresponding to the formation of
a kink in a system of adatoms on the surface of a substrate, or a crowdion in a
chain of atoms in crystals described by the sine-Gordon equation, and also solitons
in a bound electron-phonon quasi-one-dimensional molecular chain. It is shown that
study of the x-ray scattering provides for the possibility to gather information on
the static and dynamic properties of the solitons.

Irina Bariakhtar
Boston College

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