**On x-ray scattering by solitons in systems of adsorbed atoms**
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— The cross section for scattering of x-rays by solitons 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.

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