cases	doc_1	doc_2	decision	id
	authors: • Richard B. Melrose • Gunther Uhlmann **title**: Generalized backscattering and the Lax-Phillips transform **publication_date**: 2007-12-01 00:00:00 **source**: SupportedSources.OPENALEX **journal**: Serdica. Mathematical Journal **volume**: **doi**: None **urls**: • https://openalex.org/W194256293 **id**: id-1813670102075724322 **abstract**: **versions**:	**authors**: • Richard Melrose • Gunther Uhlmann **title**: Generalized backscattering and the Lax-Phillips transform **publication_date**: 2007-12-27 13:53:17+00:00 **source**: SupportedSources.ARXIV **journal**: None **volume**: **doi**: **urls**: • http://arxiv.org/pdf/0712.4236v2 • http://arxiv.org/abs/0712.4236v2 • http://arxiv.org/pdf/0712.4236v2 **id**: id5138008585371623424 **abstract**: Using the free-space translation representation (modified Radon transform) of Lax and Phillips in odd dimensions, it is shown that the generalized backscattering transform (so outgoing angle $\omega =S\theta$ in terms of the incoming angle with S orthogonal and $\Id-S$ invertible) may be further restricted to give an entire, globally Fredholm, operator on appropriate Sobolev spaces of potentials with compact support. As a corollary we show that the modified backscattering map is a local isomorphism near elements of a generic set of potentials. **versions**:	DUPLICATES	1533