

s7.m7.o5 Applications of resonant X-ray scattering in the hard- and soft-X-ray regime. U. Staub. *Paul Scherrer Institut, CH-5232 Villigen PSI, Switzerland.*

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Notes

Applications of resonant X-ray scattering in the hard X-ray regime, where it is shown that this technique is able to study directly and quantitatively charge ordering phenomena exemplified on the 1-d charge order of holes below the metal-insulator transition in Yb_4As_3 . A second example shows that it is possible to obtain site-selective electronic information on valence states even from powder data in $\text{PrBa}_2\text{Cu}_3\text{O}_{7-d}$, which belongs to the high temperature superconducting family but does not superconduct. It is further shown that resonant scattering could be also very useful in the soft-x-ray regime and that it is possible to extract DAFS like of information from multilayers.