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# EENVIRONMENTAL STABILITY OF THE $YBa_2Cu_3O_{7-x}$ CERAMIC SUPERCONDUCTOR

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It is well known now that the superconducting properties of Y-Ba-Cu-O compound can deteriorate after sometime if the sample is not stored properly. The main reason for this is the corrosive effect of the moist environment on this material.

A study was carried out to determine the stability of $YBa_2Cu_3O_{7-x}$ superconductor in various solvent including water. The study shows that the moist air reacts with this material and progressively reduce the superconducting properties by producing non-superconducting reaction products. X-ray diffraction and electron microscopy was employed to identify these reaction products. It was found that the major reaction products are $BaCO_3$ , $Y(OH)_3$ and CuO.