Details view

Knowhow offering

Title	Process for the preparation of solar salt reduced levels of trace impurities, and having high purity and whiteness suitable for edible and industrial applications
Knowhow is available for	An process to produce solar salt of high purity which minimizes the need for downstream purification in chemical industries where salt is used as basic raw material.
Summary	
Advantages	a) Process for the preparation of solar salt having high purity and whiteness: The process of deals with significant improvements in salt purity and whiteness. The improvements realized are partly on account of elimination of suspended impurities like gypsum and clayey matter in the brine, which may otherwise be carried along with the brine in the crystallizer and finally end up in the salt, and partly due to the improved crystal size and morphology that minimizes embedded impurities in the salt. Rain washing of the heaped salt has resulted in a salt with greatly reduced calcium and sulphate impurity levels hitherto not achieved in solar salt production. b) Process for production of high purity salt with reduced levels of impurities: The process is an improvement over the existing process of producing solar salt of high purity from seawater and minimizes the need for downstream purification. More particularly, the process involves recrystallization of salt in solar salt pans using seawater itself as the dissolving medium. The salt is obtained with a yield up to 80% and with much reduced levels of impurities. Special mention is made of the bromide level which is reduced 7-10 fold. The process is most ideal for trace impurities which reside in the salt crystal lattice and are difficult to dislodge by conventional methods adopted for salt purification and where conventional recrystallization would be cost ineffective and scalability would pose a problem. The invention can be practiced by solar salt works based on seawater and where spare land is availableto set up additional crystallizers required for the purpose of recrystallization.

Knowhow is listed under following categories

Knowhow from	
Scientific/ engineering subject areas	**Chemical sciences & engineering**
Investor interest categories	**Materials Technology including Nanotechnology**
Industries	**Inorganic and Hybrid materials, Inorganic materials** ;