

4th International Conference on
GREEN ENERGY & EXPO
&

6th International Conference on
RECYCLING: REDUCE, REUSE & RECYCLE November 06-08, 2017 | Las Vegas, USA

Chloride removal from the secondary source of zinc

N Dakhili, A Mashverat, H Razavizadeh, M T Salehi and S H Seyedein
Iran University of Science and Technology, Iran

Zinc containing wastes/secondary's such as zinc ash, dross, flue dusts, sludge, residue etc. are generated in various chemical and metallurgical industries. The materials contain different level of impurities depending on the source. If zinc content material, like zinc ash and zinc slag contains various amounts of chlorides like zinc chloride, zinc oxy-chloride which comes from ammonium chloride and other chloride fluxes used by galvanizers, the chloride content has to be removed for the evaluation of this secondary resource for recovery as zinc metal or zinc oxide. The results (of the galvanizing slag's treating that left after some pyrometallurgical presses) indicate that roasting at 800°C for 30 min followed by alkali washing treatment at 70°C for 45 min by 1/6 solid/liquid ratio and 1.5 times the stoichiometric amount will be useful for chloride removal with 94% efficiency.

nafiseh_dakhili@hotmail.com