Salt Partners

Salt Partners Ltd. Carl Spitteler Str. 102 CH-8053 Zurich

Tel.: +41 (44) 422 26 82 Fax: +41 (44) 422 26 83 www.salt-partners.com



Invitation

to a presentation at the 2nd International Conference on the Ecological Importance of Solar Saltworks (CEISSA), 26-28 March 2009, Merida, Yucatan, Mexico

The "Missing Link" between saltworks biology and solar salt quality

It has been widely recognised that healthy biological systems in solar saltworks lead to higher salt production and better salt quality. However, a comprehensive explanation of the biological, chemical and physical mechanisms that cause sodium chloride to crystallise as monocrystals or as agglomerates, has been missing.

Salt Partners embarked on a research program targeting the discovery of this "Missing Link". Organic compounds, such as 1,2,3-trihydroxypropane biosynthesised by Dunaliella salina for survival by osmoregulation in hypersaline environments, have been identified as inhibitors that unfavourably modify sodium chloride crystallisation habit. Instead of growing as large monocrystals, salt forms agglomerates of tiny crystals, which increases the content of embedded impurities. In chloralkali manufacture that consumes some 60% of the world salt production, salt purity is crucial to save brine purification chemicals and prevent formation of contaminated effluents. Salt Partners seek the cooperation of scientists and solar salt producers to complement the "Missing Link" program with field research.

Salt Partners is an independent firm of consultants and engineers, active in the field of salt production, processing and hypersaline biotechnology. Salt Partners' reputation is based on more than 30 years of experience gained in projects implemented world-wide.

> Vladimir M. Sedivy MSc (Hons) Chem Eng, IMD President, Salt Partners Ltd, Zurich, Switzerland Email: vladimir.m.sedivy@salt-partners.com











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