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Perovskites: Unlocking the potential

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Perovskites are yellow, brown or black minerals consisting of largely of Calcium Titanate. A Perovskite is any material with a crystal structure following the formula ABX3, which was first discovered as the mineral called Perovskite, which consists of Calcium titanate oxide, in ABX3, A is a metal with ox-state 2+, B is a metal With ox-State 4+ & X is a non-metal Usually oxygen With ox.state 2 - many oxides with the Perovskite structure. have physical and chemical properties that make them useful in electronic devices. Their characteristics include electronic conductivity, oxide ion mobility through crystal lattices, thermal and chemical stability. Photo catalysts, Thermo electric & dielectric properties.

Drawbacks & Plus Points:

1. The Perovskite material will break down quickly due to exposure of heat, moisture, Snow Etc.
2. Perovskite has simple Cubic symmetry and is related, to FCC Lattice.
3. The structure absorbs Sun Light in a different, more effective Way than Silica cells.
4. Perovskite, a mixed halide CH 3 NH 3 Pb Ix Ch3-x in n-type Semiconductor.
5. In Perovskite Hybrid organic-inorganic Perovskites (HolP3) are crystals with the structural formulae ABX3, where A, B & X are organic & in organic lons respectively…….

Biography

Naga Venkata Krishna Vajjhala was CSIR (Council of Scientific and Industrial Research) fellow in India and has worked for Ph.D. during the age of 28-33 years during 1998-2003 at Indian Institute of Chemical Technology (IICT) in Hyderabad, India. Ph.D. was not awarded. My M.Sc., M.Phil. was awarded in University of Hyderabad, India. I have no publications to my credit. I am pursuing Chemistry and science with personal interest and passion in the subject. I don't represent any organization.

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