

KEYWORDS: bassanite, Lower Lias, Lyme Regis, Dorset.

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Comment on 'zoned hibonites from Punalur, South India'

SANTOSH *et al.* (1991) did not cite any of a large number of 'materials-science' papers on magnetoplumbites (the crystal class of which they rightly state hibonite is a member). Many papers cover the kinds of coupled-ion substitutions that they have observed in their mineral case. Thus we read, 'The theoretical (sic) REE end-member composition is *therefore* (my italics) REE $R^{2+}Al_{11}O_{19}$ ', when, indeed, not only is this a known structure, but $LaR^{2+}Al_{11}O_9$, where $R = Mg, Co, Mn, Cu$ etc., have actually been refined by Gasperin *et al.* (1984) and site occupancies of the divalent atom were determined. Early work on these compounds was carried out at the Philips Lab. in Eindhoven for the purpose of making better phosphors for fluorescent lamps; these are now used world-wide and are probably right above the authors heads in their laboratories. One mini-review (Morgan and Miles, 1986,

containing 27 references) exists to more of these coupled-substitutions.

References

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