Dr. Phil Barker

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"Stay sunsafe this summer : a primer in sunscreen selection and functionality"

Over the past couple of years many of you will have heard of, or seen some of Phil's work on sunscreens. His 2008 paper 'The interaction of modern sunscreen formulations with surface coatings' (Progress in Organic Coatings.2008 **62** 313) showed how some over-the counter sunscreens have been formulated with photocatalytic grades of titanium dioxide (TiO_2), resulting in significant (and unsightly) damage to the surface coatings employed in COLORBOND®steel. While animal studies have not been completed on the effects of photocatalytic materials on skin, other recent work shows these same sunscreens can damage cultured human epithelial cells and interfere with fish reproduction in marine environments. These studies show that we must be circumspect when selecting sunscreens for use by our families.

In this talk, Phil gives an update on his results on surface coatings; gives a guide to reading the labels on sunscreens, shows some key points to look out for when companies update or renew their packaging and shows how when you walk into a store to buy sunscreen which contains TiO_2 – you have a 50% chance of picking up a 'bad' (i.e. photocatalytic) one!