Hawaiian scientists surf on a test-tube

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Photo credit is Robert Liu.

(PhysOrg.com) -- Chemists have traded their white coats for swim shorts at the University of Hawaii, Honolulu – they've shunned the lab so they can swim out to the breakers with a test-tube built into a boogie-board.

The glorious sunshine and the Pacific Ocean provide the perfect conditions for Robert Liu and colleagues' photochemical reactions, which use the sun's rays to make variants of vitamin A. This environmentally-friendly research is reported in the RSC journal *Green Chemistry*.

The excess heat from the reaction is then effortlessly dissipated by the sea, presumably as the highly skilled chemist completes the reaction by riding a huge wave back to the beach.

The team show off their new surf reactor in the RSC journal *Green Chemistry*, including a few photos of the locals combining two Hawaiian passions – surfing and science.

Liu says the boogie-board reactor has "allowed us to tap the Pacific Ocean as an immense heat sink for the dissipation of the excess thermal energy discharged from the solar reactor, while at the same time it injects 'sun and fun' into our photochemical program."

Scaling up the reaction is easy too – just use a bigger surfboard, says Liu.

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