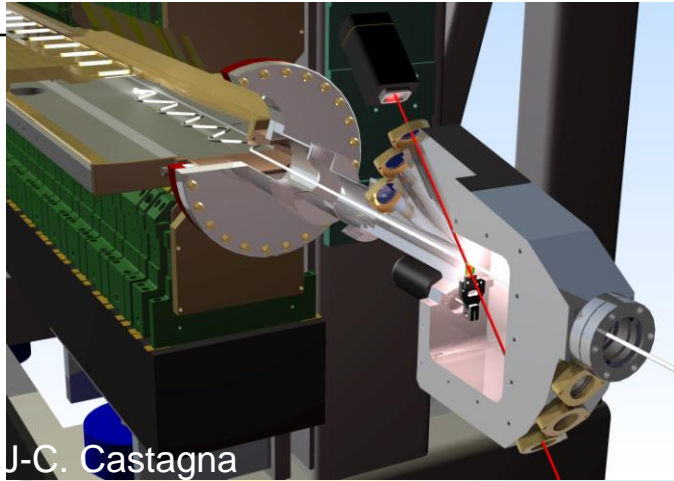


# Ultrafast X-rays Map Forces that bind a Solid

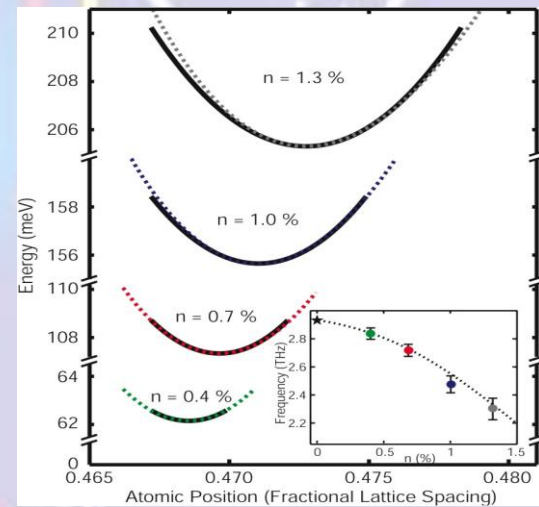
FOCUS researchers produce the first ever map of the inter-atomic potential of a highly excited solid.



To produce an ultrafast movie of the motion of the bismuth atoms, individual images were indexed according to the x-ray arrival time using a novel electro-optic clocking technique.



A femtosecond laser pulse excites a bismuth crystal



Reconstructed potential energy surface for different excitation levels.

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