

Supplementary Information for

Unveiling Ultraviolet Photodissociation Dynamics of SiO from Laser- Ablated Supersonic Beam with Time-Sliced Ion Velocity Imaging

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Fig. S1-S4

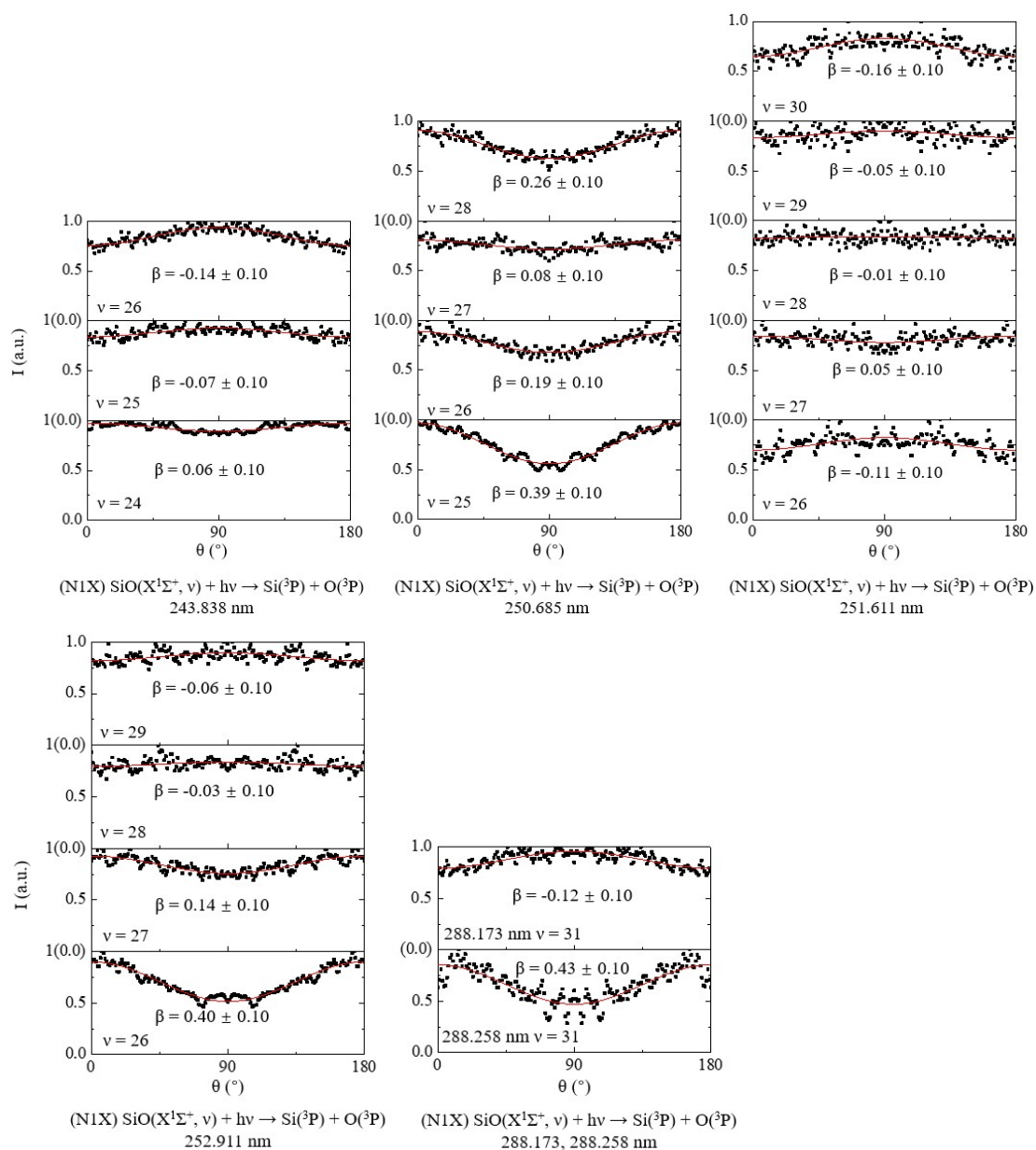


Fig. S1 Angular distributions of Si products in $\text{SiO}(X^1\Sigma^+, v = 24-31) + h\nu \rightarrow \text{Si}(^3\text{P}) + \text{O}(^3\text{P})$ (N1X) channel from one-photon dissociation of $\text{SiO}(X^1\Sigma^+, v)$ at 243.838, 250.685, 251.611, 252.911, 288.173 and 288.258 nm, respectively. Further details regarding the fit can be found in the paper.

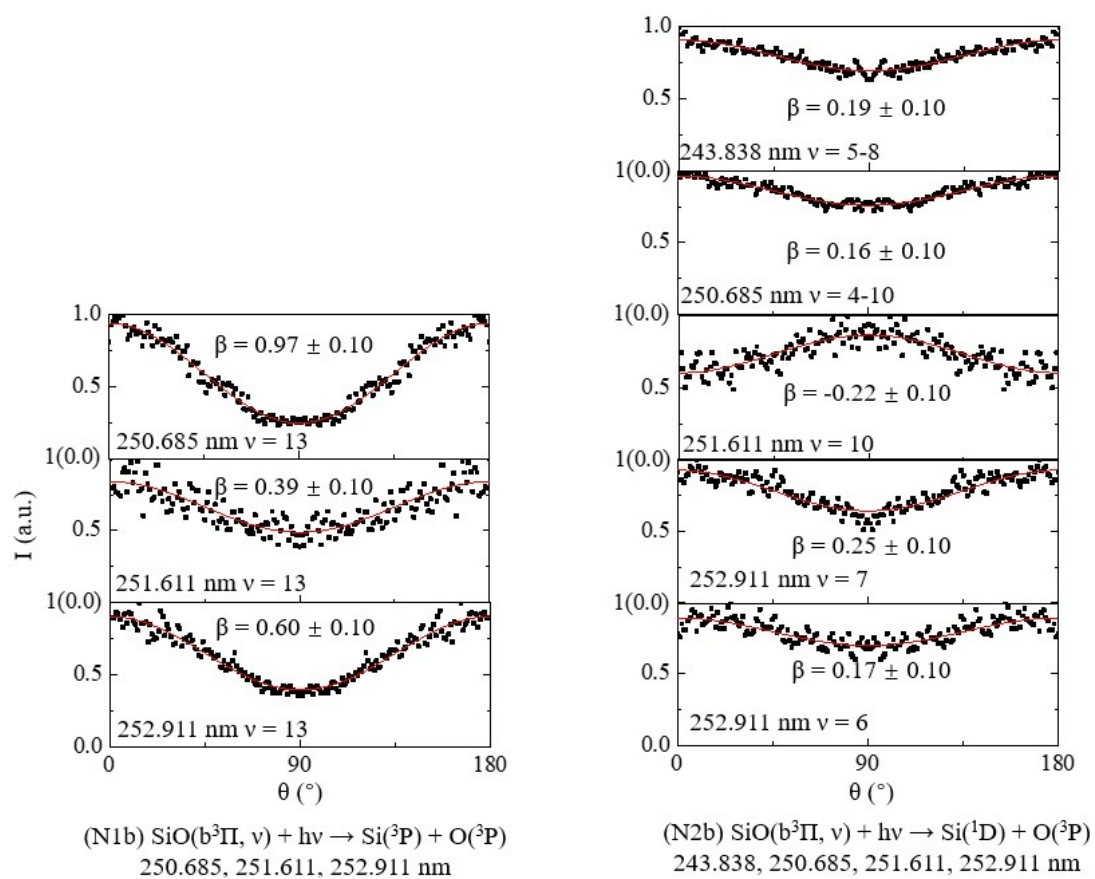


Fig. S2 Angular distributions of Si products in $\text{SiO}(\text{b}^3\Pi, \nu) + h\nu \rightarrow \text{Si}(\text{}^3\text{P}) + \text{O}(\text{}^3\text{P})$ (N1b) channel and $\text{SiO}(\text{b}^3\Pi, \nu) + h\nu \rightarrow \text{Si}(\text{}^1\text{D}) + \text{O}(\text{}^3\text{P})$ (N2b) channel from one-photon dissociation of $\text{SiO}(\text{b}^3\Pi, \nu)$ at 252.911, 250.685, 251.611, 243.838 nm, respectively.

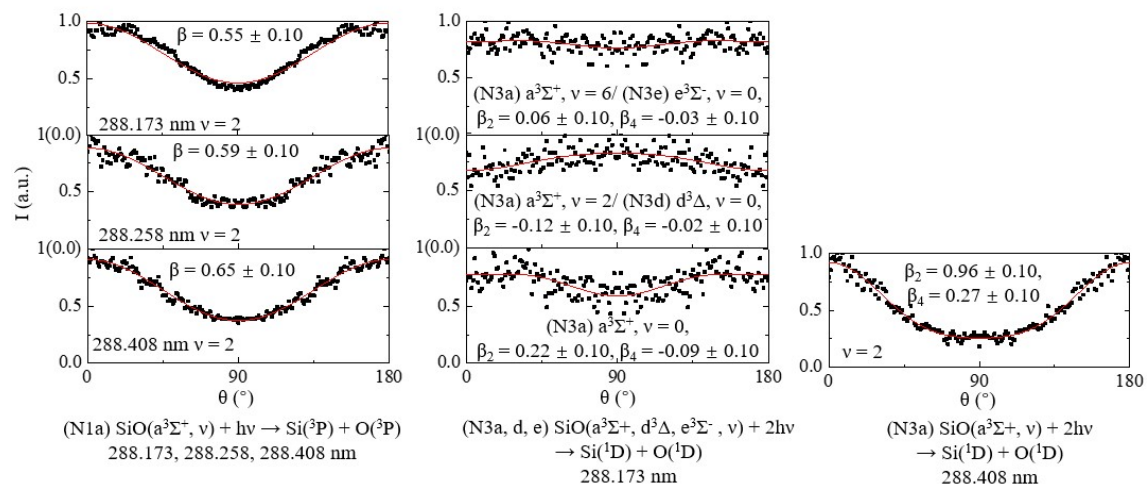


Fig. S3 Angular distributions of Si products from one-photon and two-photon dissociation of $\text{SiO}(a^3\Sigma^+, d^3\Delta$ or $e^3\Sigma^-, v)$ at 288.173, 288.258 and 288.408 nm, respectively.

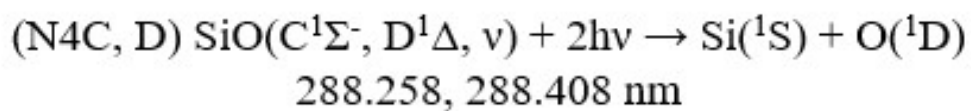
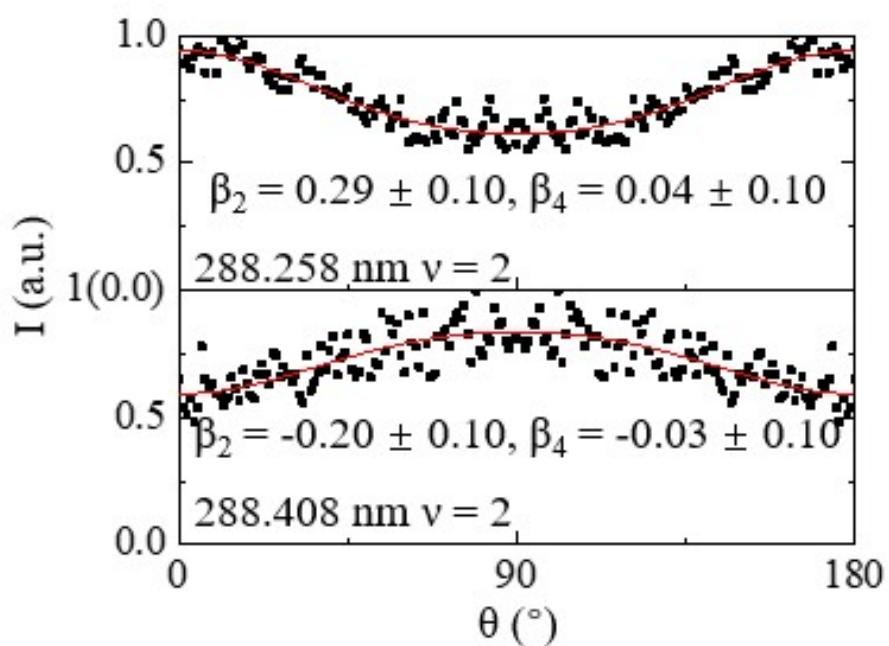


Fig. S4 Angular distributions of Si products from two-photon dissociation of $\text{SiO}(\text{C}^1\Sigma^-$; $\text{D}^1\Delta, v)$, respectively.