

Supporting Information

Two-dimensional transition metal dichalcogenides mediated long range surface plasmon resonance biosensors

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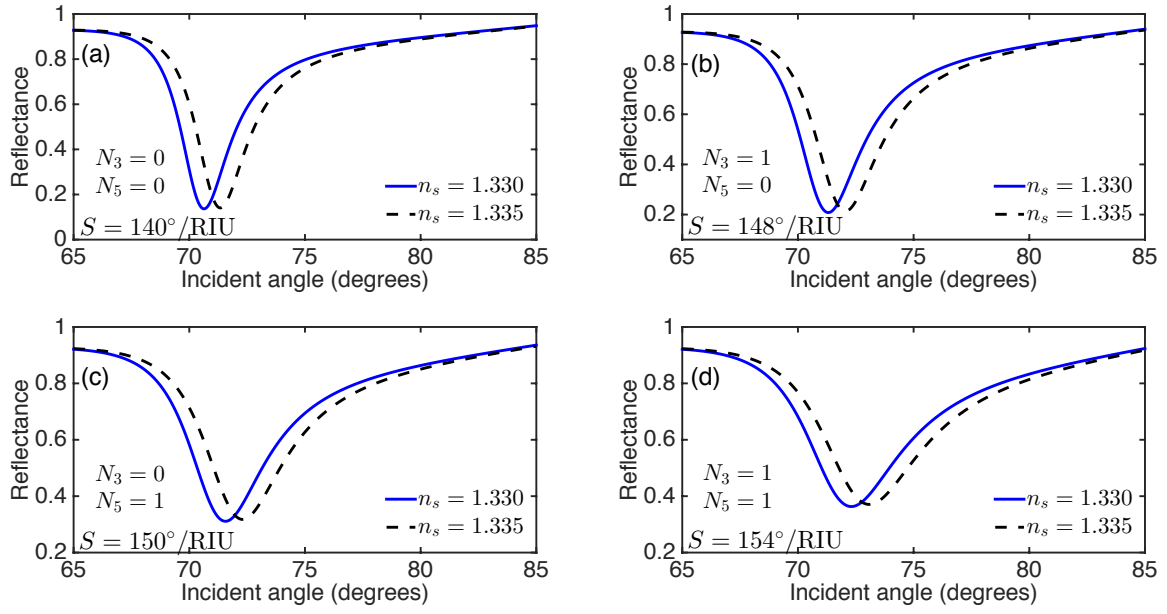


Figure S1. Reflectance as a function of the incident angle before (solid lines) and after (dashed lines) the variation of analyte RI for the $\text{Ti}_3\text{C}_2\text{T}_x\text{-MoSe}_2$ -based SPR sensor with (a) $N_3 = 0$, $N_5 = 0$, (b) $N_3 = 1$, $N_5 = 0$, (c) $N_3 = 0$, $N_5 = 1$, and (d) $N_3 = 1$, $N_5 = 1$.

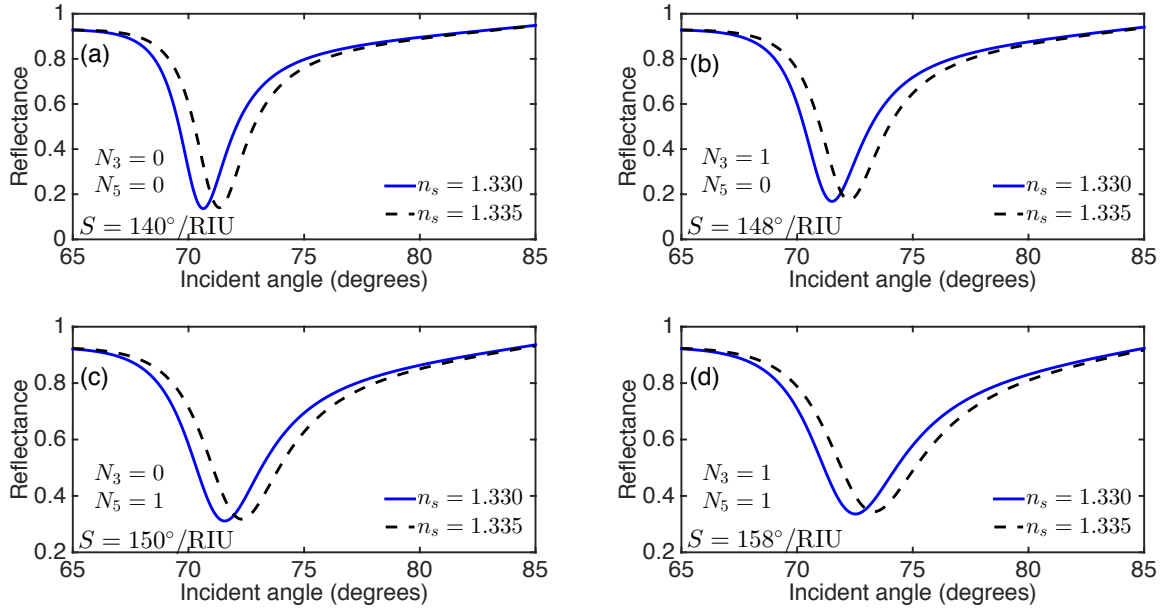


Figure S2. Reflectance as a function of the incident angle before (solid lines) and after (dashed lines) the variation of analyte RI for the $\text{Ti}_3\text{C}_2\text{T}_x\text{-WS}_2$ -based SPR sensor with (a) $N_3 = 0$, $N_5 = 0$, (b) $N_3 = 1$, $N_5 = 0$, (c) $N_3 = 0$, $N_5 = 1$, and (d) $N_3 = 1$, $N_5 = 1$.

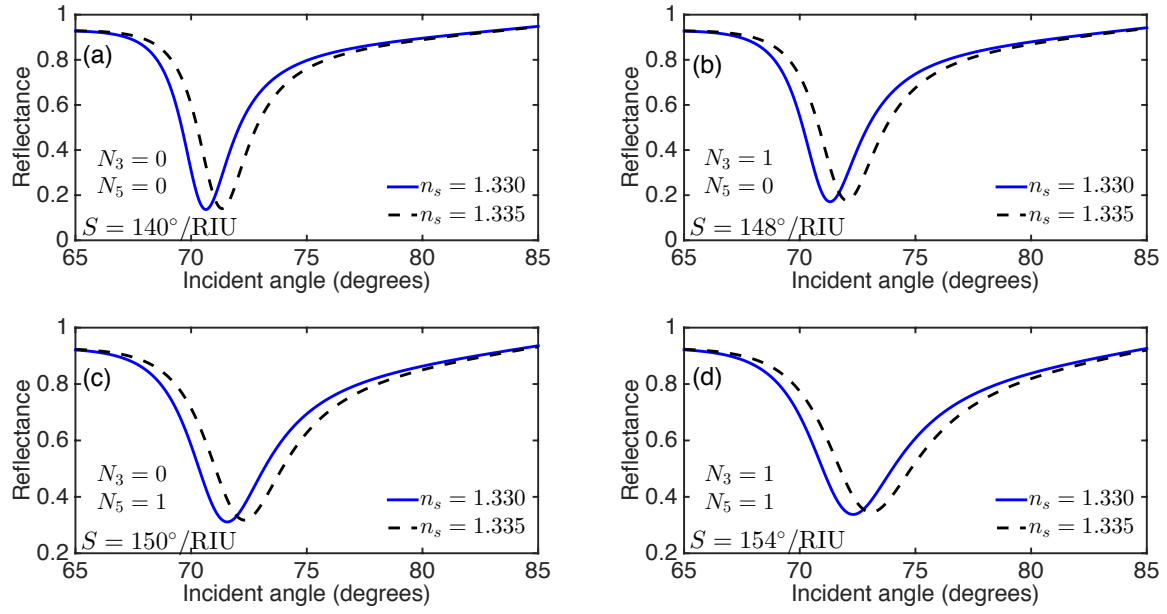


Figure S3. Reflectance as a function of the incident angle before (solid lines) and after (dashed lines) the variation of analyte RI for the $\text{Ti}_3\text{C}_2\text{T}_x$ -WSe₂-based SPR sensor with (a) $N_3 = 0, N_5 = 0$, (b) $N_3 = 1, N_5 = 0$, (c) $N_3 = 0, N_5 = 1$, and (d) $N_3 = 1, N_5 = 1$.

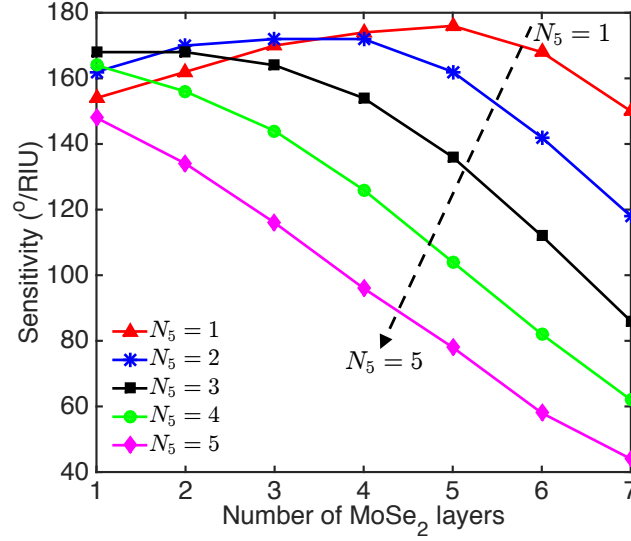


Figure S4. Sensitivity as a function of the number of MoSe₂ layers for $\text{Ti}_3\text{C}_2\text{T}_x$ -MoSe₂-based SPR sensor with different layers of $\text{Ti}_3\text{C}_2\text{T}_x$.

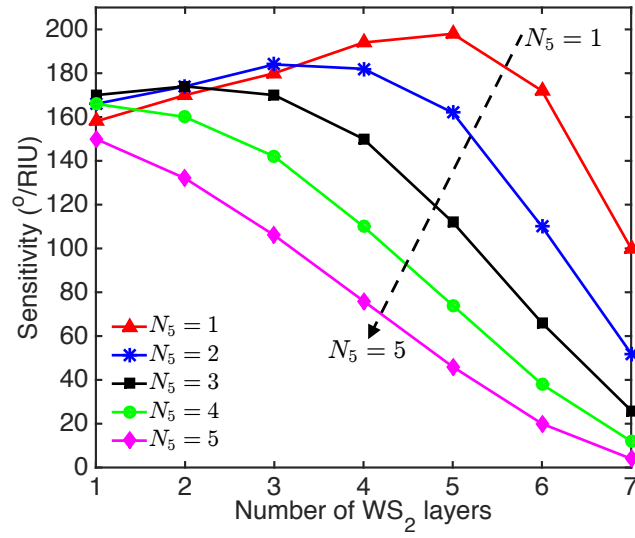


Figure S5. Sensitivity as a function of the number of WS_2 layers for $Ti_3C_2T_x$ - WS_2 -based SPR sensor with different layers of $Ti_3C_2T_x$.

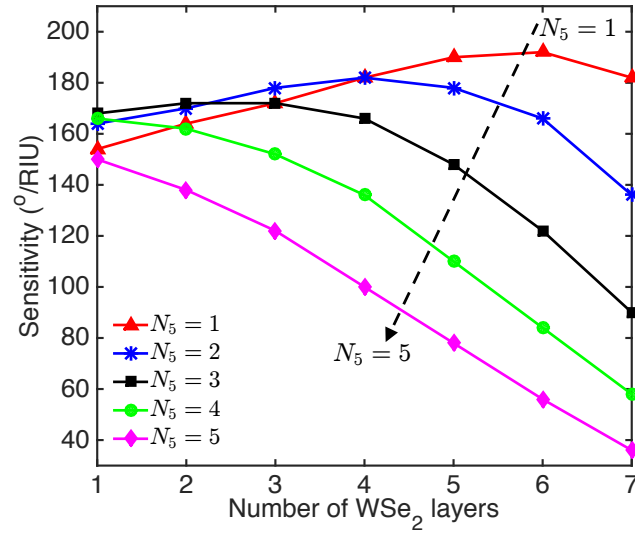


Figure S6. Sensitivity as a function of the number of WSe_2 layers for $Ti_3C_2T_x$ - WSe_2 -based SPR sensor with different layers of $Ti_3C_2T_x$.