Supporting Information

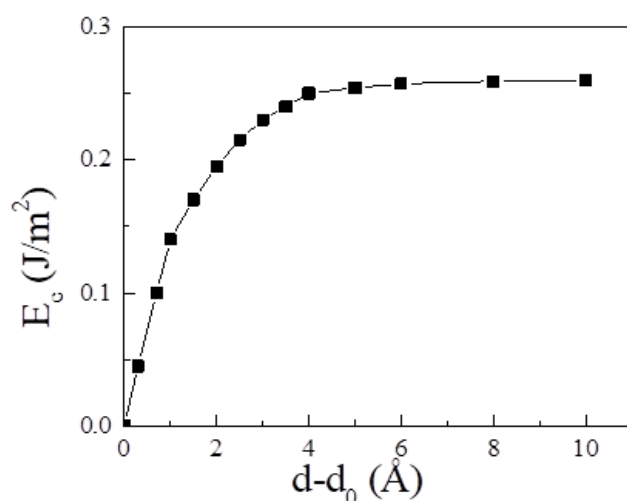# Gate tunable near Infrared hyperbolic properties in monolayer NaW$_2$O$_2$Br$_6$

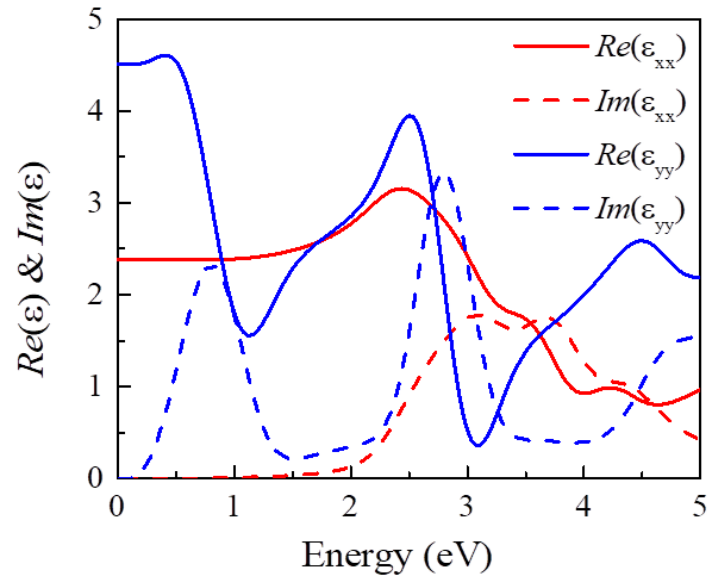*Enhui Huang[1], Han Jiao[1], Hui Xiang[2], Xia Zhou[1], Jiang Yin[3], Wenying Zhong[1],*, Bo Xu[1],**
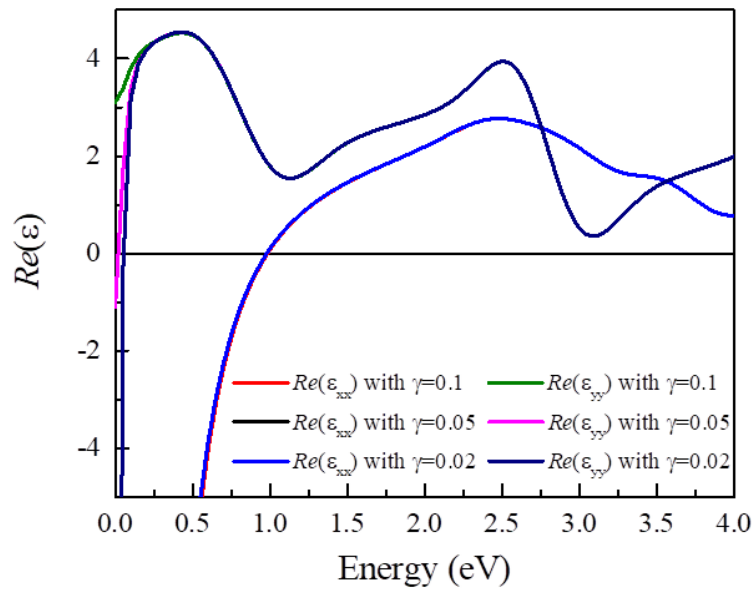
This PDF file includes:

Figure. S1 to S3

Tables S1

Figure S1. Calculated exfoliation energy vs separation distance for NaW$_2$O$_2$Br$_6$ monolayer, where d$_0$ indicates the van der Waals gap between adjacent layers in bulk crystal.

Figure S2. (The dielectric properties of monolayer $NaW_2O_2Br_6$ contributed by the interband transitions.)

Figure S3. (The dielectric properties of monolayer $NaW_2O_2Br_6$ with different γ ($\gamma = 0.1$, 0.05, and 0.02).)

Table S1. (Crystal structure of monolayer $NaW_2O_2Br_6$)

$NaW_2O_2Br_6$		
1.0		
3.813	0.000	0.000
0.000	10.499	0.000
0.000	0.000	26.010
W Br O Na		
2 6 2 1		
0.00000	0.13891	0.50000
0.00000	0.86109	0.50000
0.00000	1.00000	0.58027
0.00000	1.00000	0.41973
0.00000	0.32177	0.56598

0.00000	0.67823	0.56598
0.00000	0.32177	0.43402
0.00000	0.67823	0.43402
0.00000	0.13826	0.50000
0.00000	0.86174	0.50000
0.00000	0.50000	0.50000