

*Supplementary Information for*

**Single-molecule electrochemical imaging of 'split waves' in the  
electrocatalytic (EC') mechanism**

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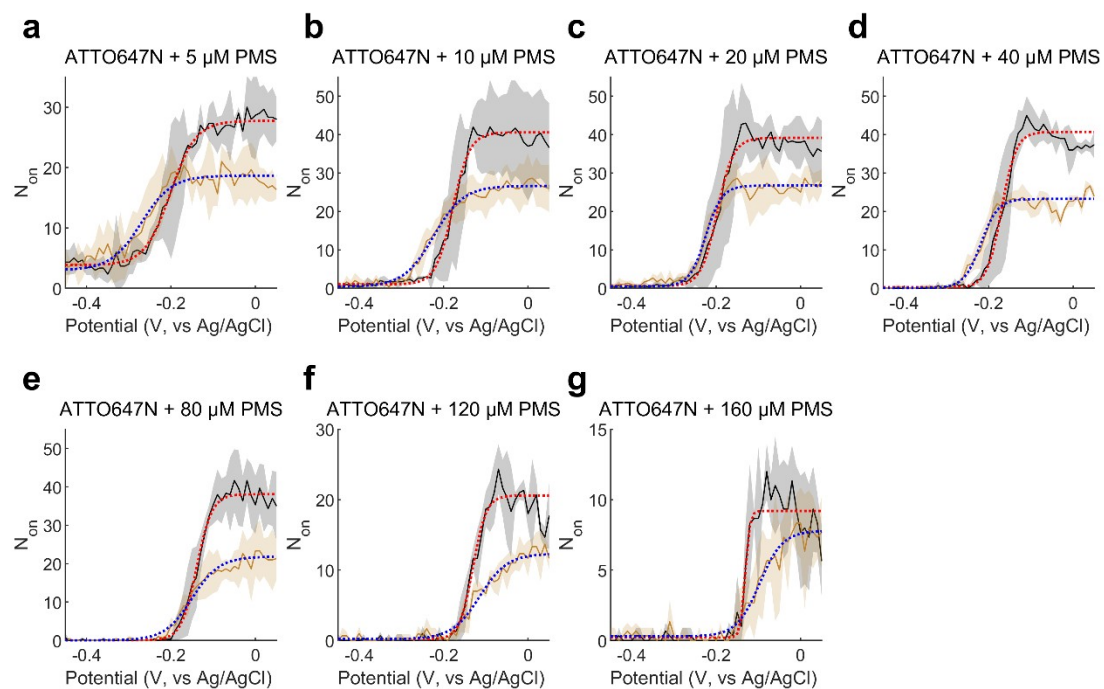


Fig. S1 Sigmoid curve ( $f(x) = \frac{a}{1 + \exp(-k * (x - E))} + d$ , where  $E$  is the midpoint potential) fitting of single-molecule number ( $N_{on}$ ) trajectories shown in Figure 2. (a) 5  $\mu$ M PMS, (b) 10  $\mu$ M PMS, (c) 20  $\mu$ M PMS, (d) 40  $\mu$ M PMS, (e) 80  $\mu$ M PMS, (f) 120  $\mu$ M PMS, and (g) 160  $\mu$ M PMS. Red dotted line: fitting to the forward scan (black); blue dotted line: fitting to the reverse scan (dark yellow).