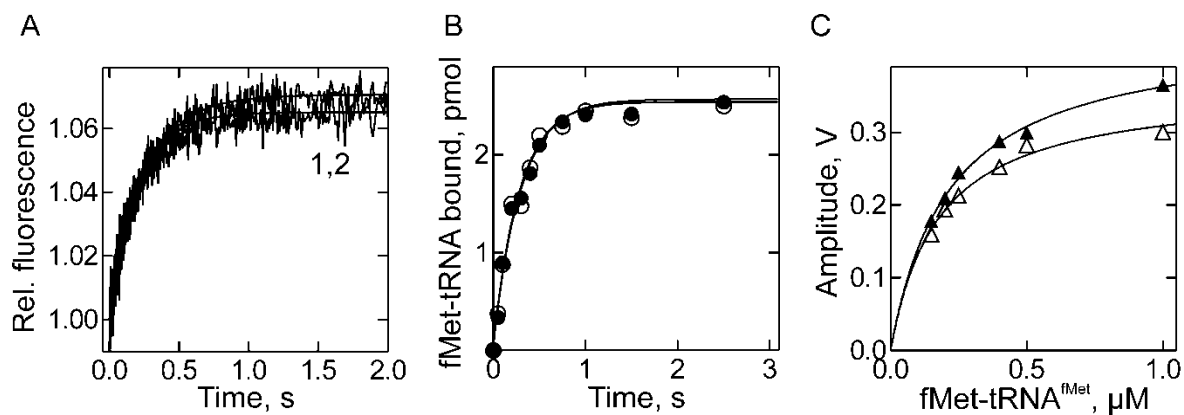


Suppl. Figure 1. Concentration dependence of the FRET amplitude during IF2(Atto)·GTP·fMet-tRNA<sup>fMet</sup>(QSY) complex formation. Hyperbolic fitting yielded  $K_d = 1.0 \pm 0.2 \mu\text{M}$ .



Suppl. Figure 2. Kinetics of IF2-dependent fMet-tRNA<sup>fMet</sup> binding to the 30S subunit.

- A. Stopped-flow. Time course of fMet-tRNA<sup>fMet</sup>(Flu) (0.2 μM) binding to the 30S·IF1·IF2·IF3(AIx) complex (0.05 μM) monitored by FRET. Trace 1, 022mRNA; trace 2, 002mRNA.
- B. Rapid filtration. Experiments were performed as in A, except that f[<sup>35</sup>S]Met-tRNA<sup>fMet</sup> was preincubated with IF2 (closed symbols) and 30S complex formation was determined by nitrocellulose filtration. Alternatively, f[<sup>35</sup>S]Met-tRNA<sup>fMet</sup> was added to the 30S\*·IF2·GTP complex (open symbols).
- C. Stopped-flow amplitudes. The amplitudes of the FRET changes (cf. panel A) were measured at increasing concentration of fMet-tRNA<sup>fMet</sup>(Flu). Closed symbols, IF2 preincubated with fMet-tRNA<sup>fMet</sup>(Flu); open symbols, IF2 preincubated with 30S\* complex.