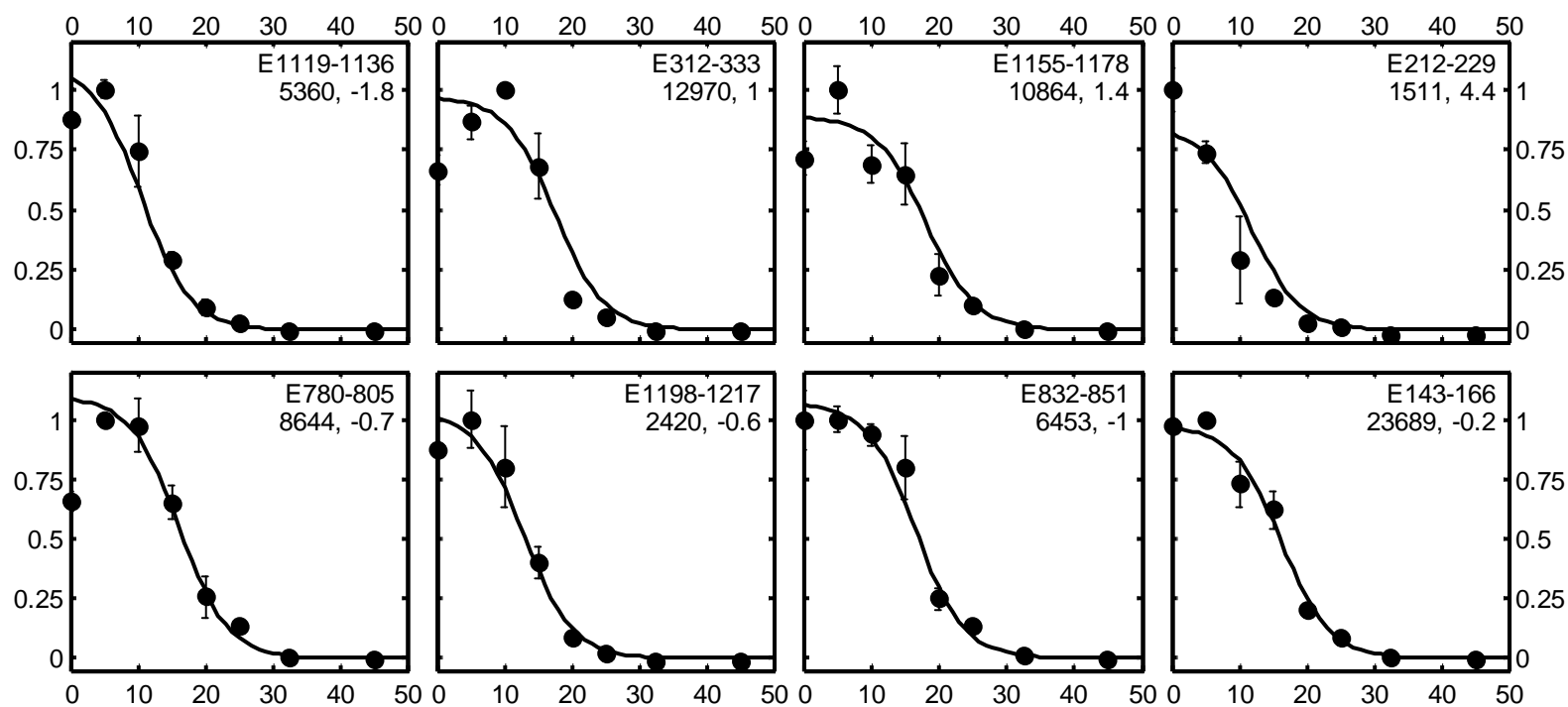
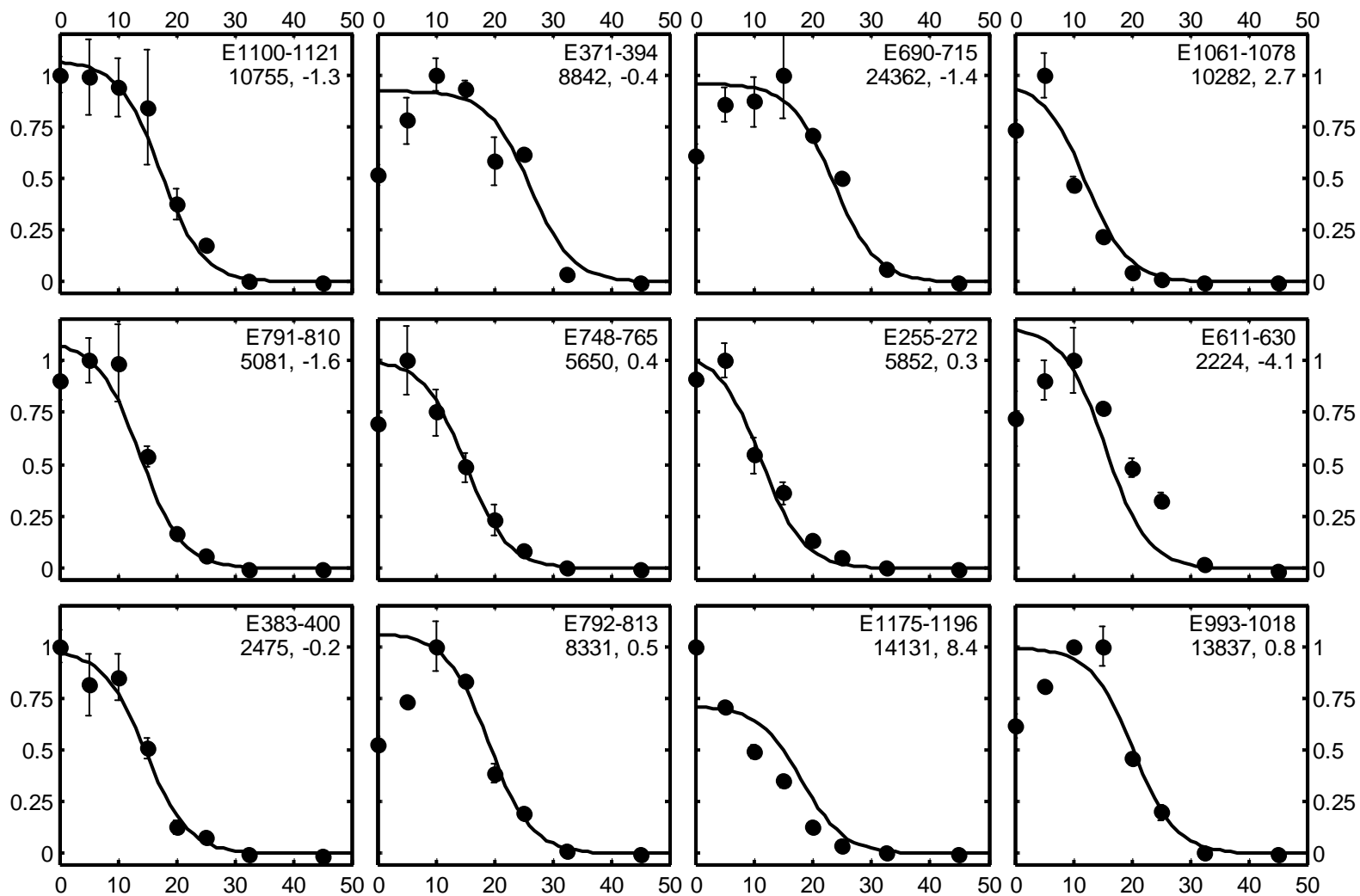


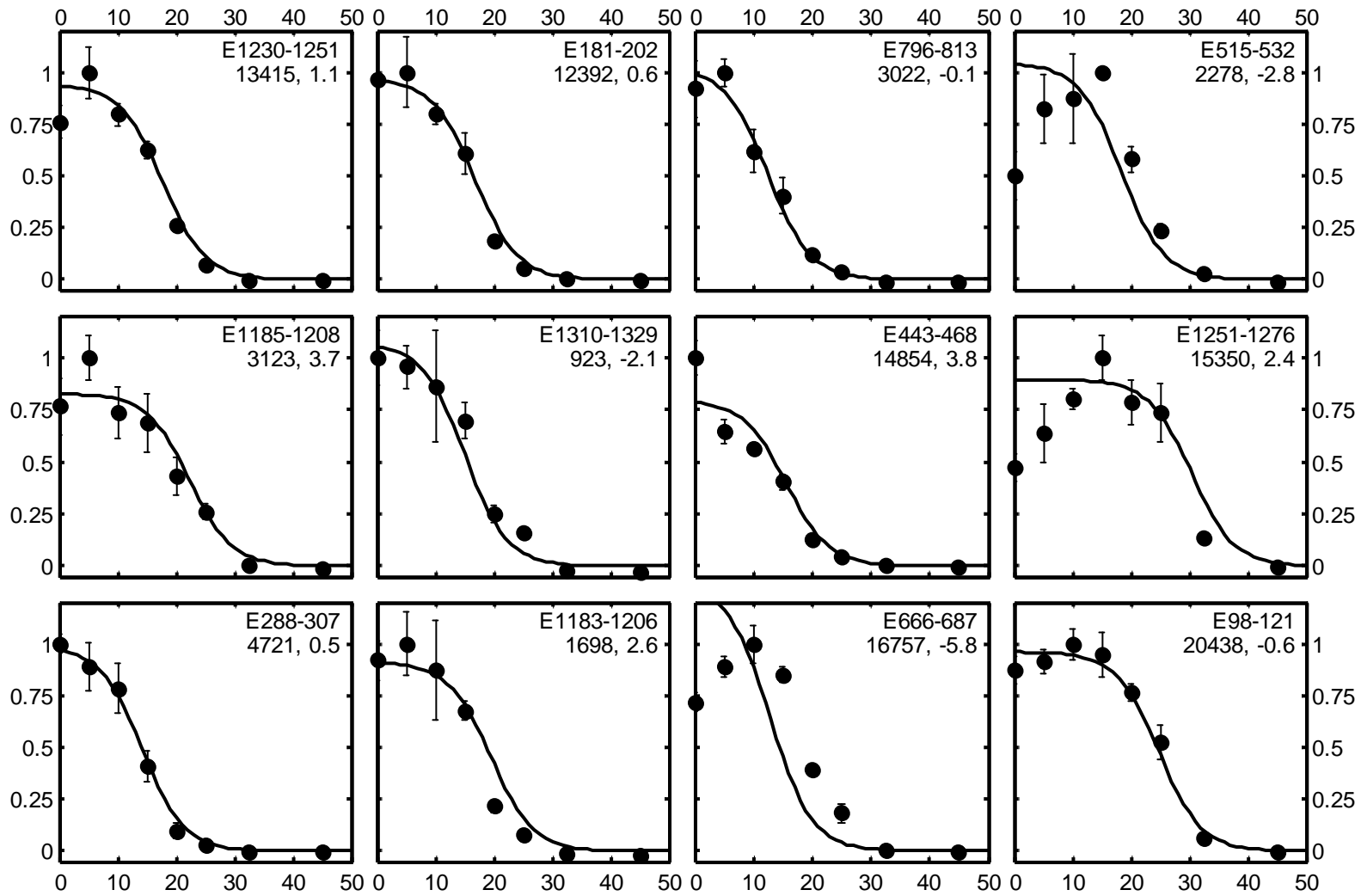
Figure S1A. Experimental (circles) and theoretical (curves) formamide dissociation profiles of 100 randomly selected probes from Length set (Table 2). The labels (upper right corner of each graph) indicate probe name (top), I_{\max} (bottom, first number), $\text{err}[\text{FA}]_{1/2}$ value (bottom, second number). See main manuscript for the descriptions of probe names and I_{\max} and $\text{err}[\text{FA}]_{1/2}$ values. x-axis, formamide concentration; y-axis, normalized signal intensity; error bars, standard deviations.

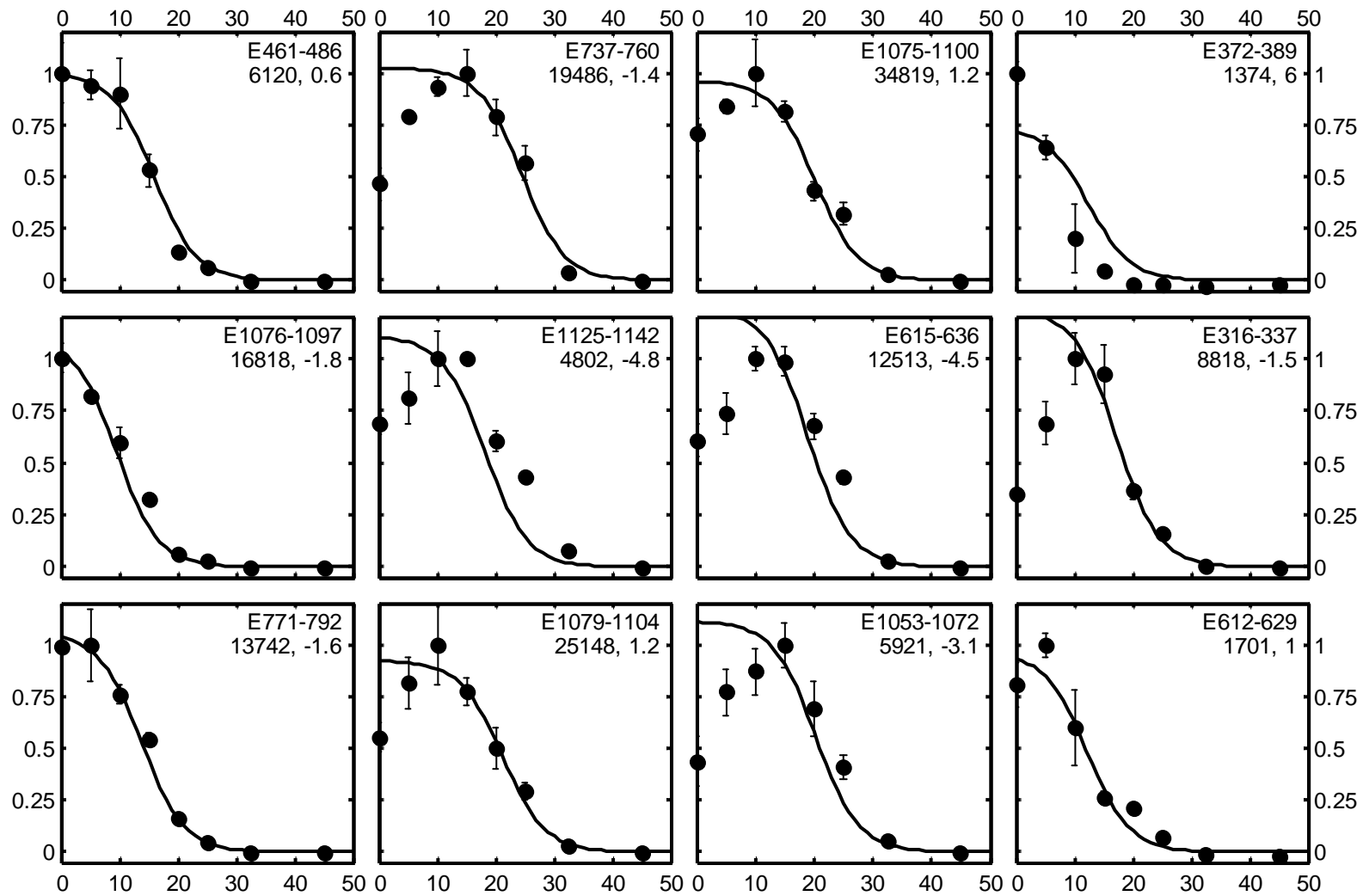
Probes 1-8:

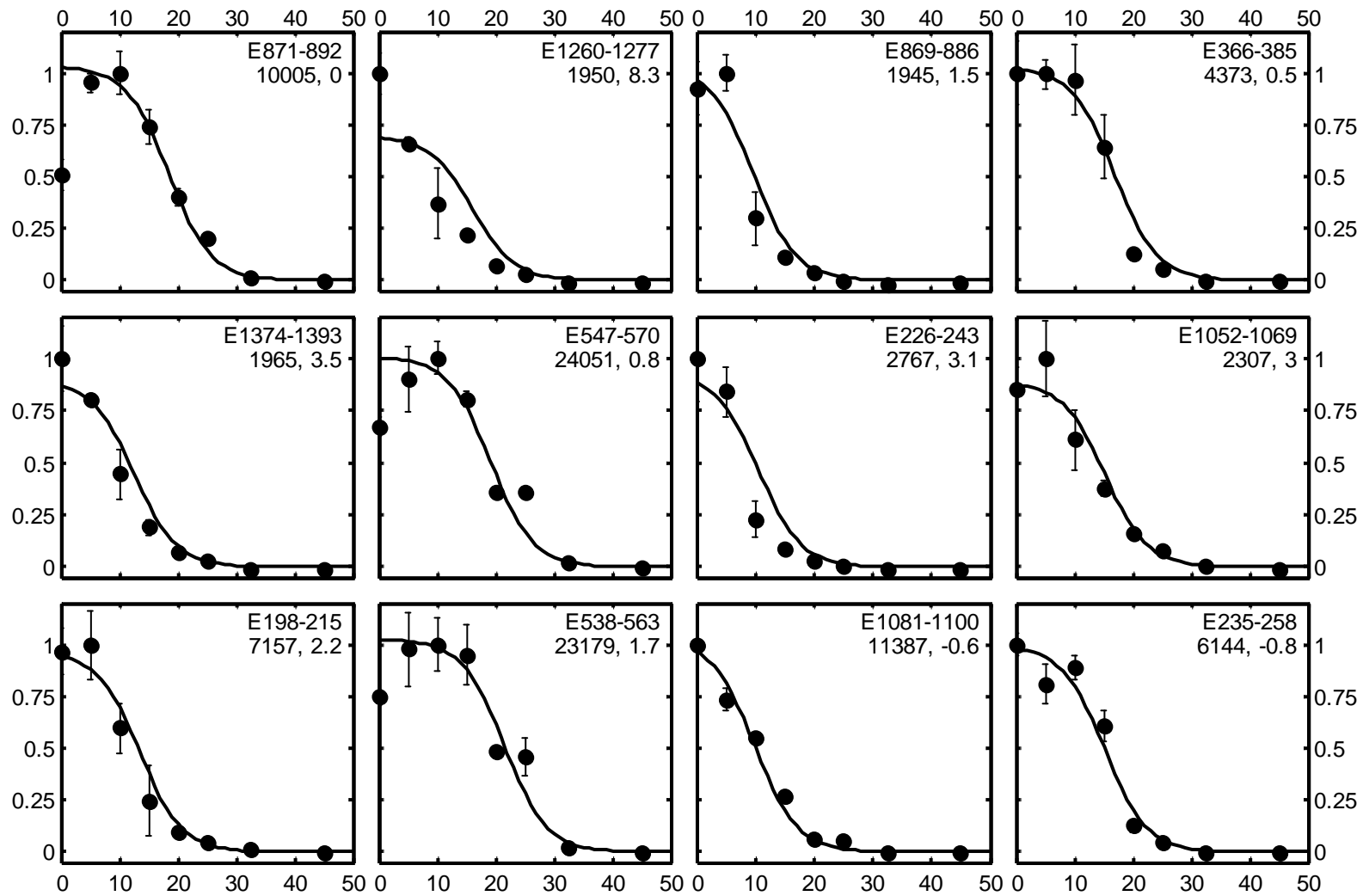


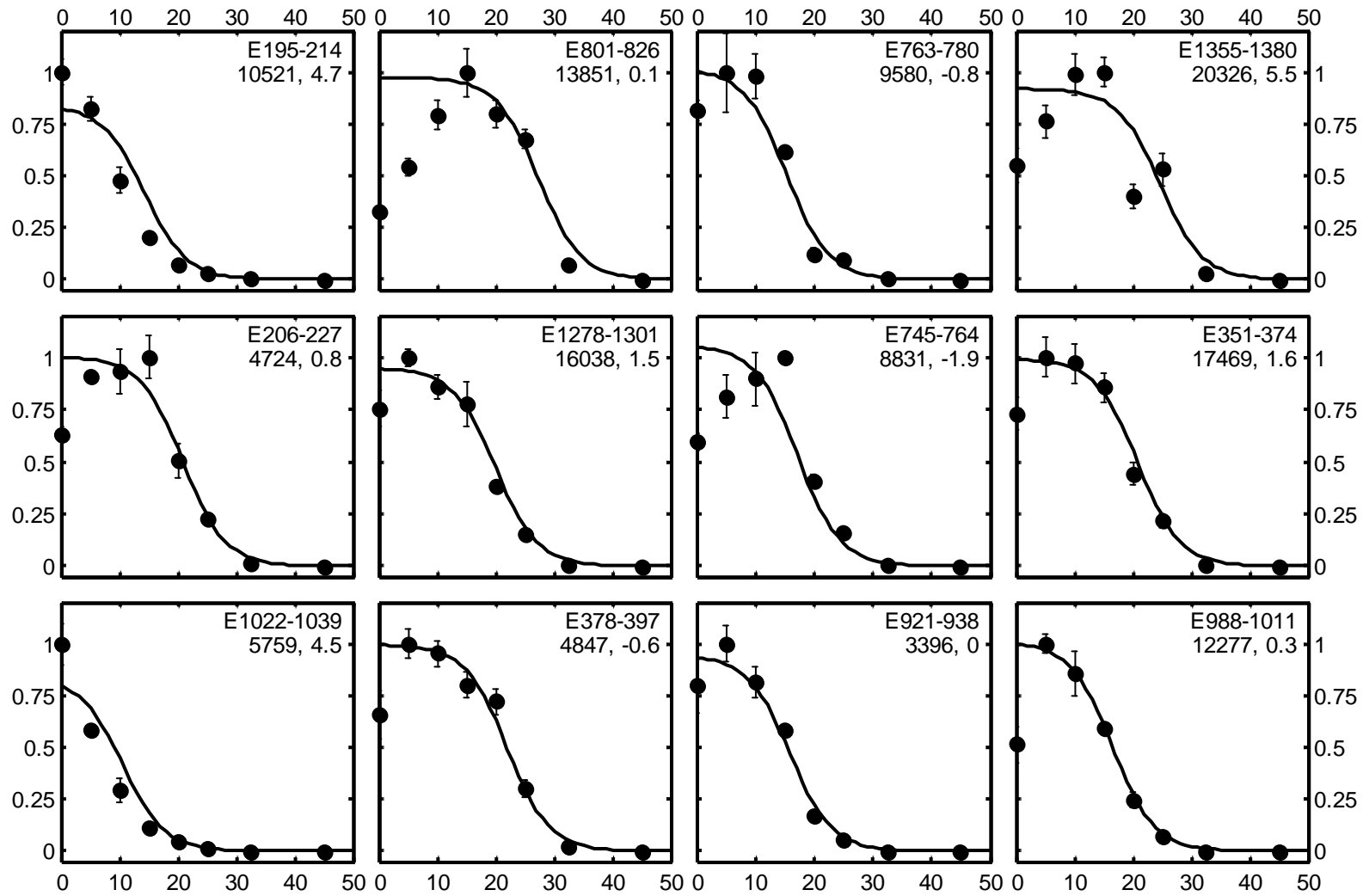
Probes 9-20:

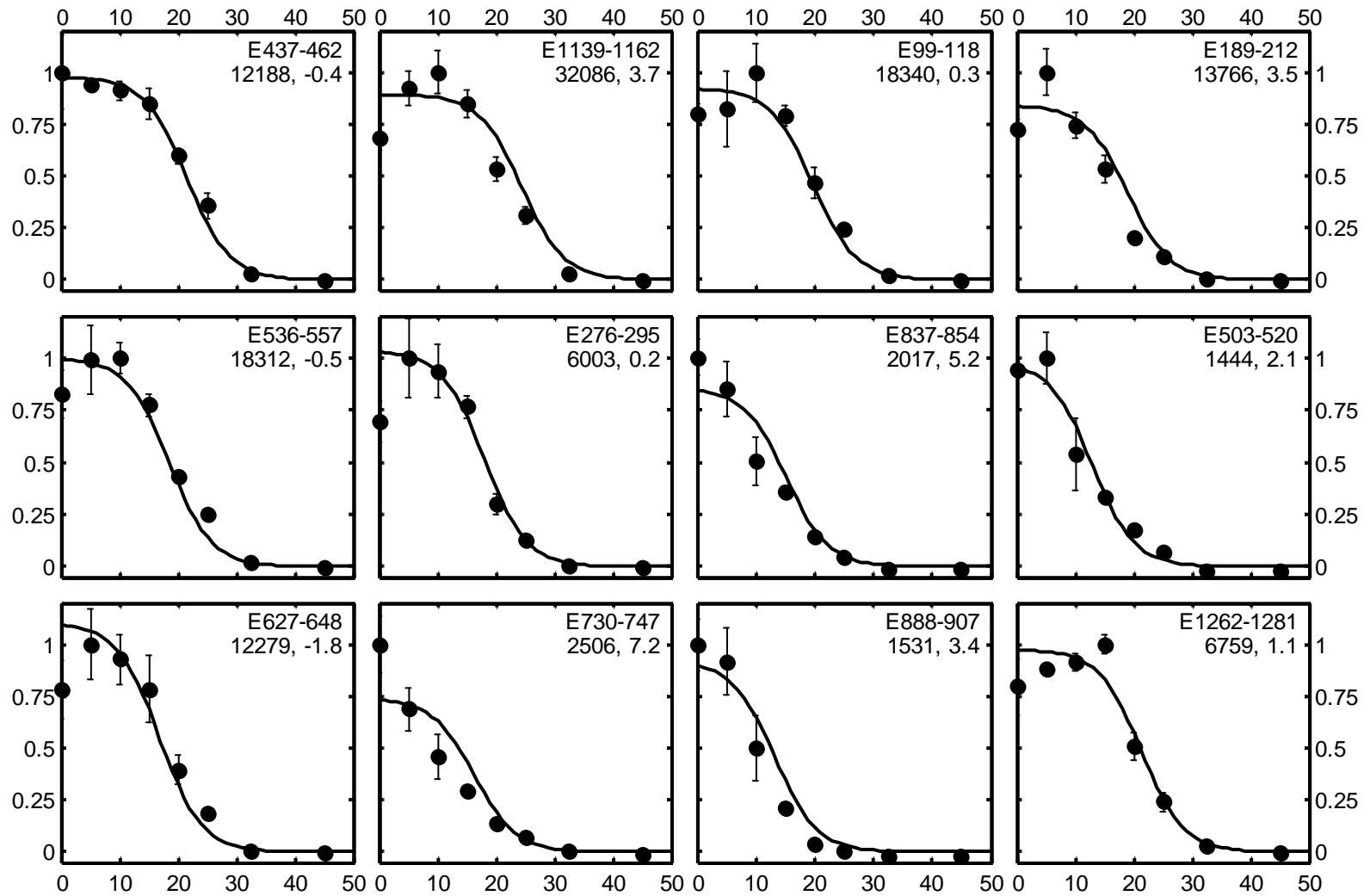


Probes 21-32:

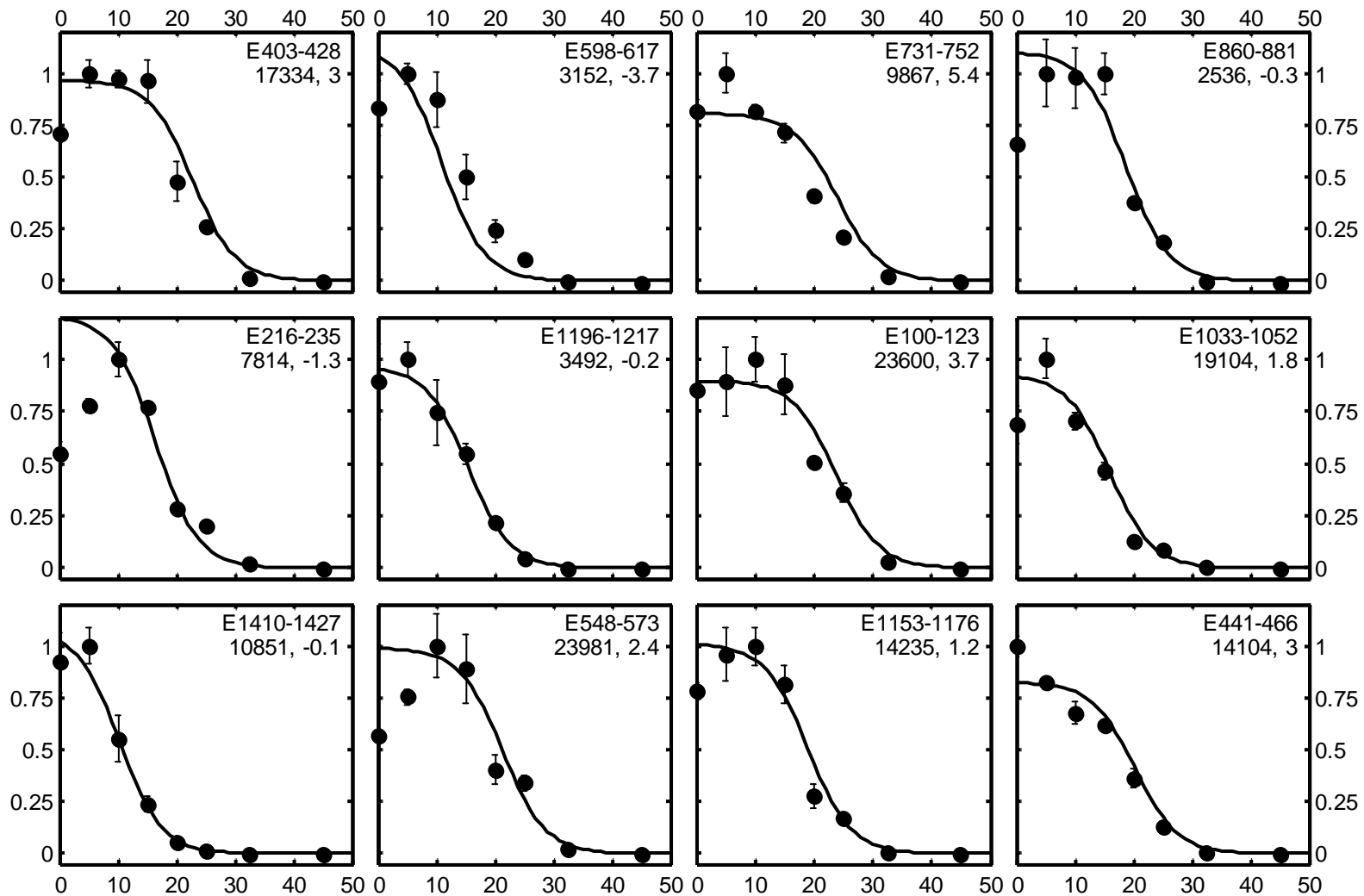
Probes 33-44:

Probes 45-56:

Probes 57-68:

Probes 69-80:

Probes 81-92:



Probes 93-100:

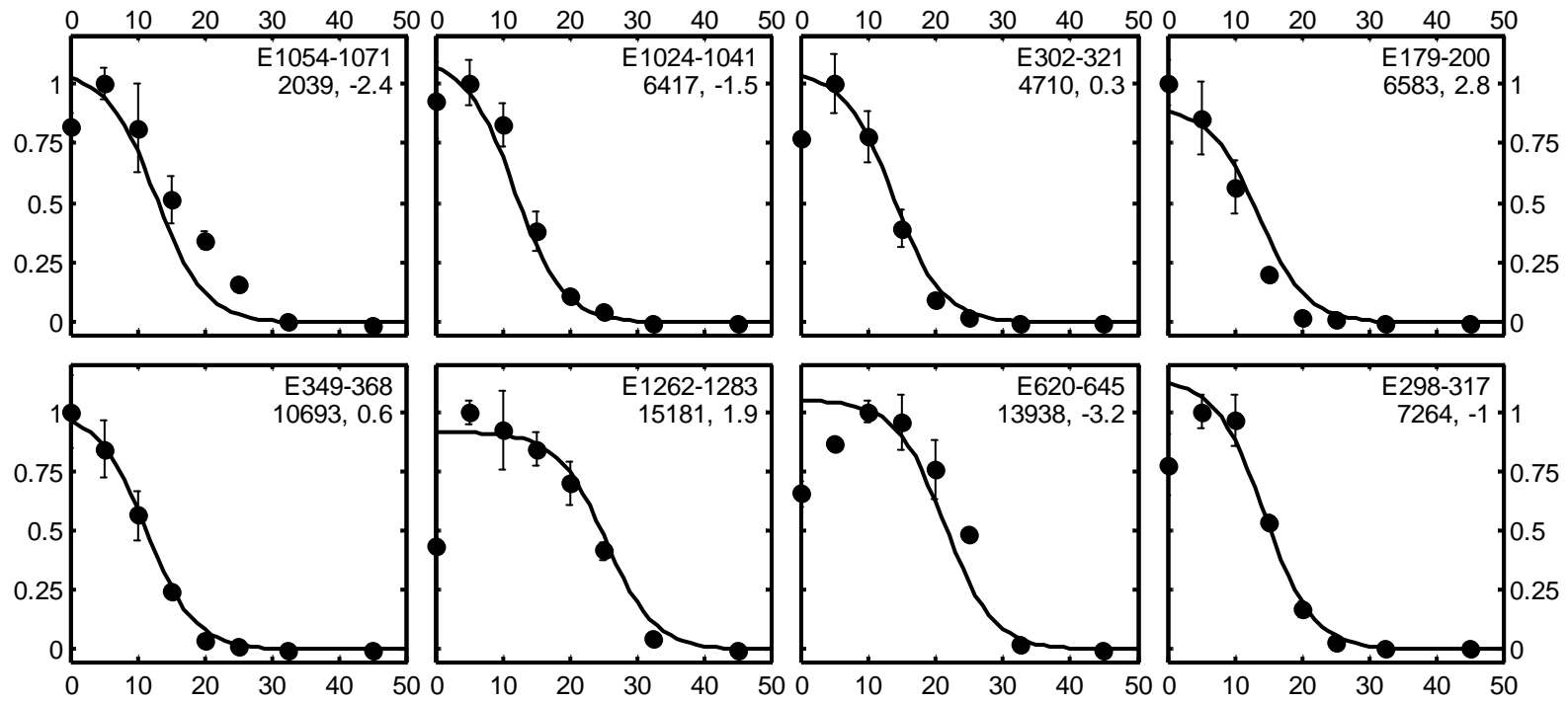
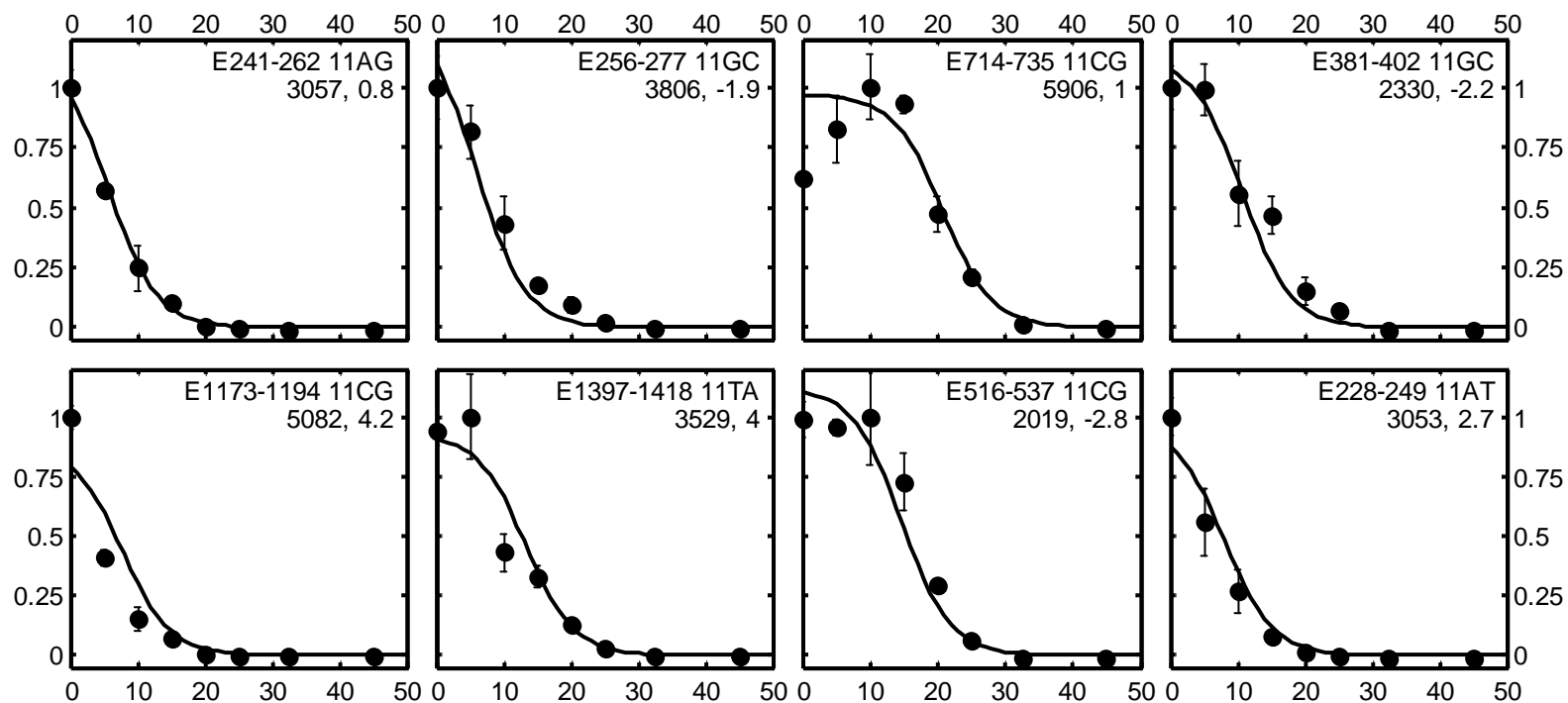
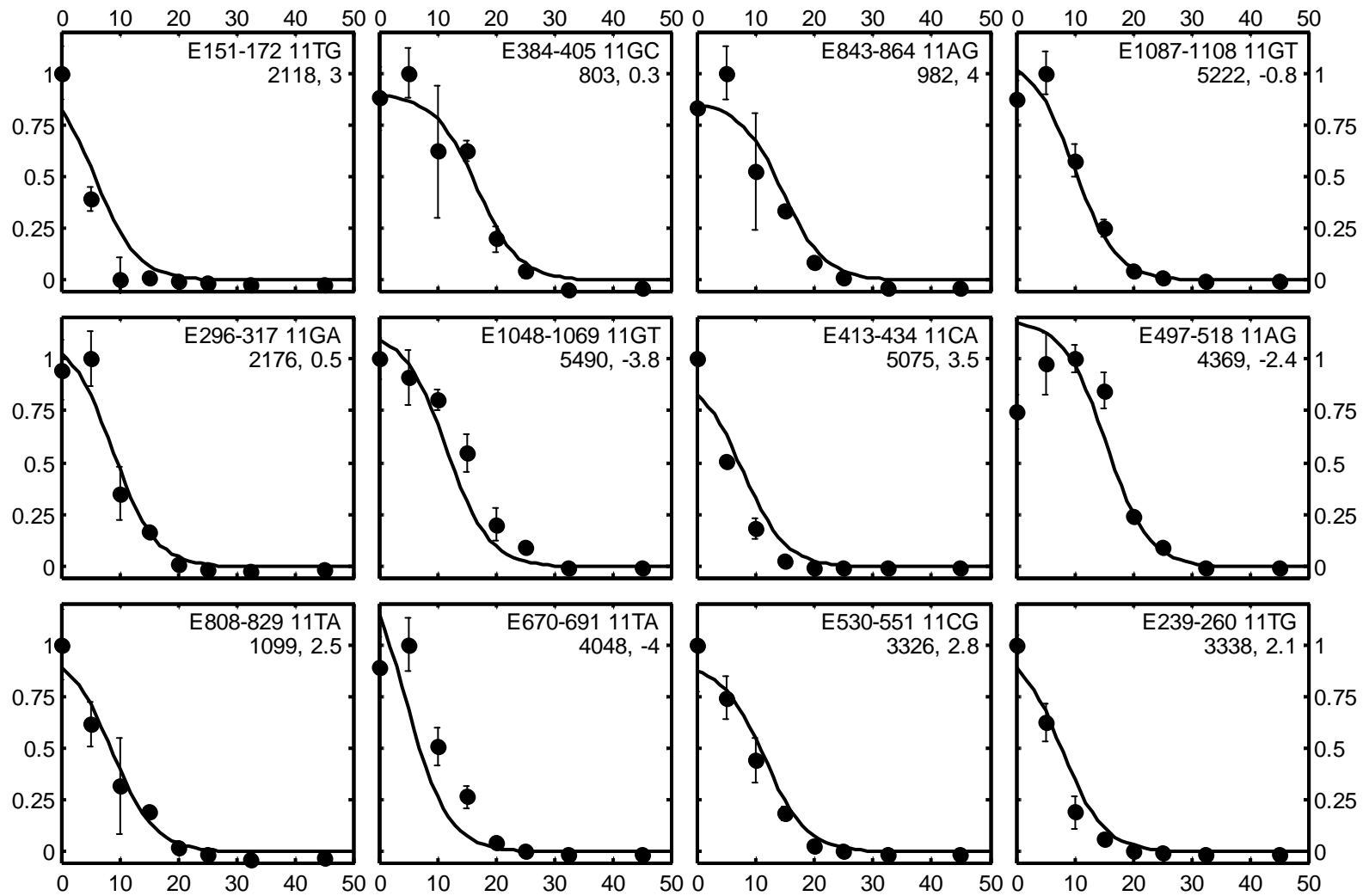
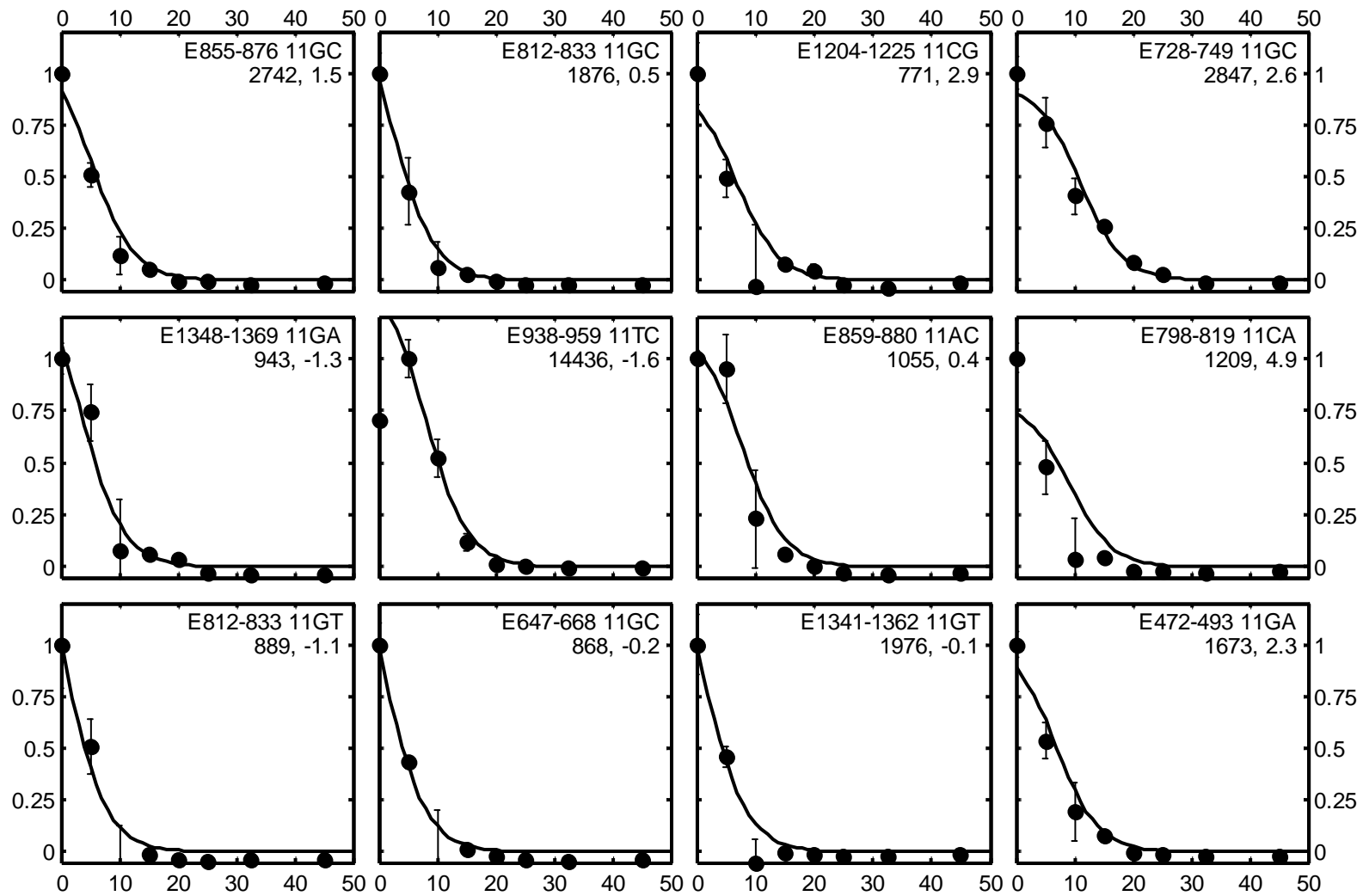


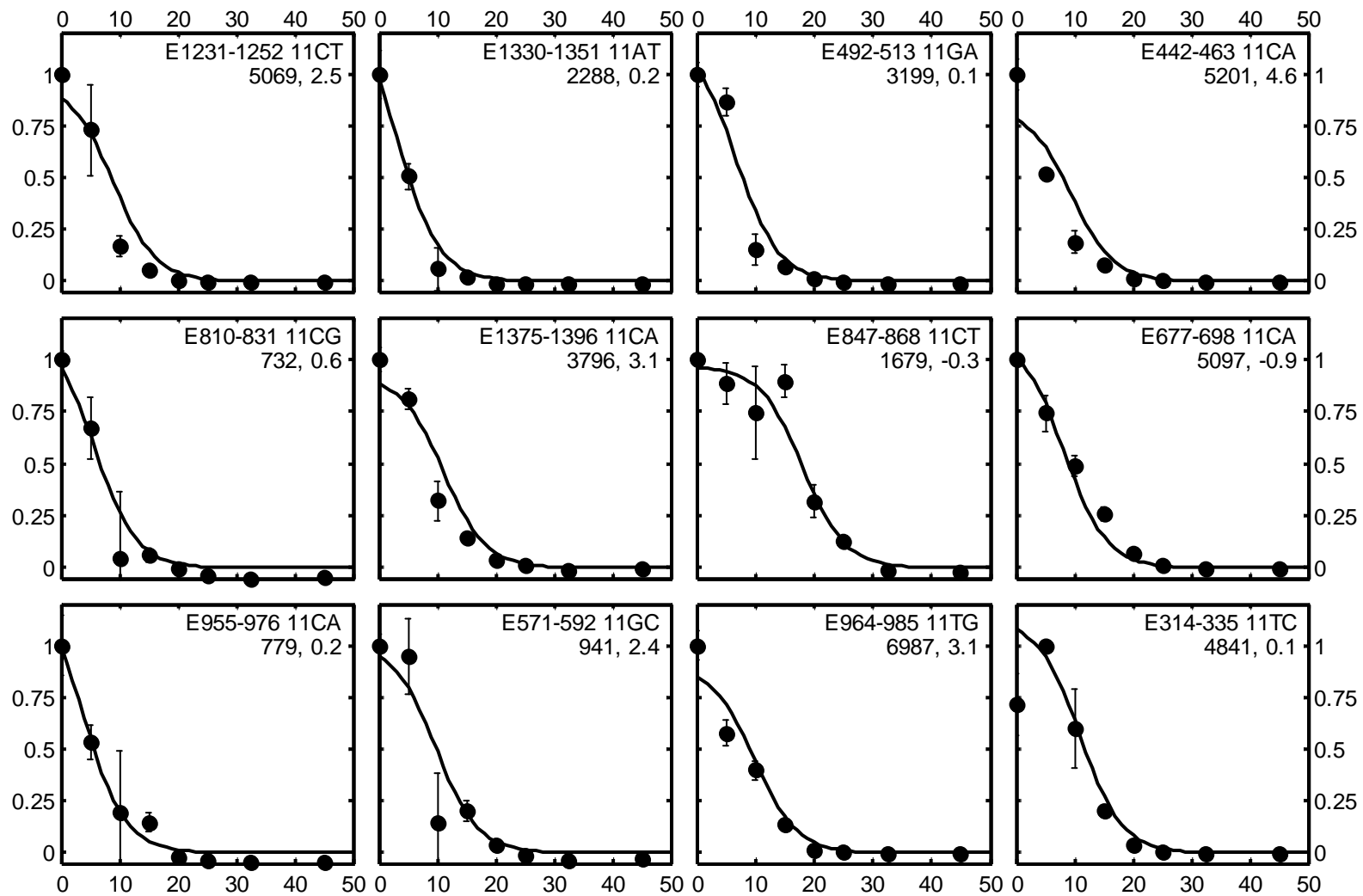
Figure S1B. Experimental (circles) and theoretical (curves) formamide dissociation profiles of 100 randomly selected probes from OneM set (Table 2). The labels (upper right corner of each graph) indicate probe name (top), I_{\max} (bottom, first number), and $\text{err}[\text{FA}]_{1/2}$ value (bottom, second number). See main manuscript for the descriptions of probe names and I_{\max} and $\text{err}[\text{FA}]_{1/2}$ values. x-axis, formamide concentration; y-axis, normalized signal intensity; error bars, standard deviations.

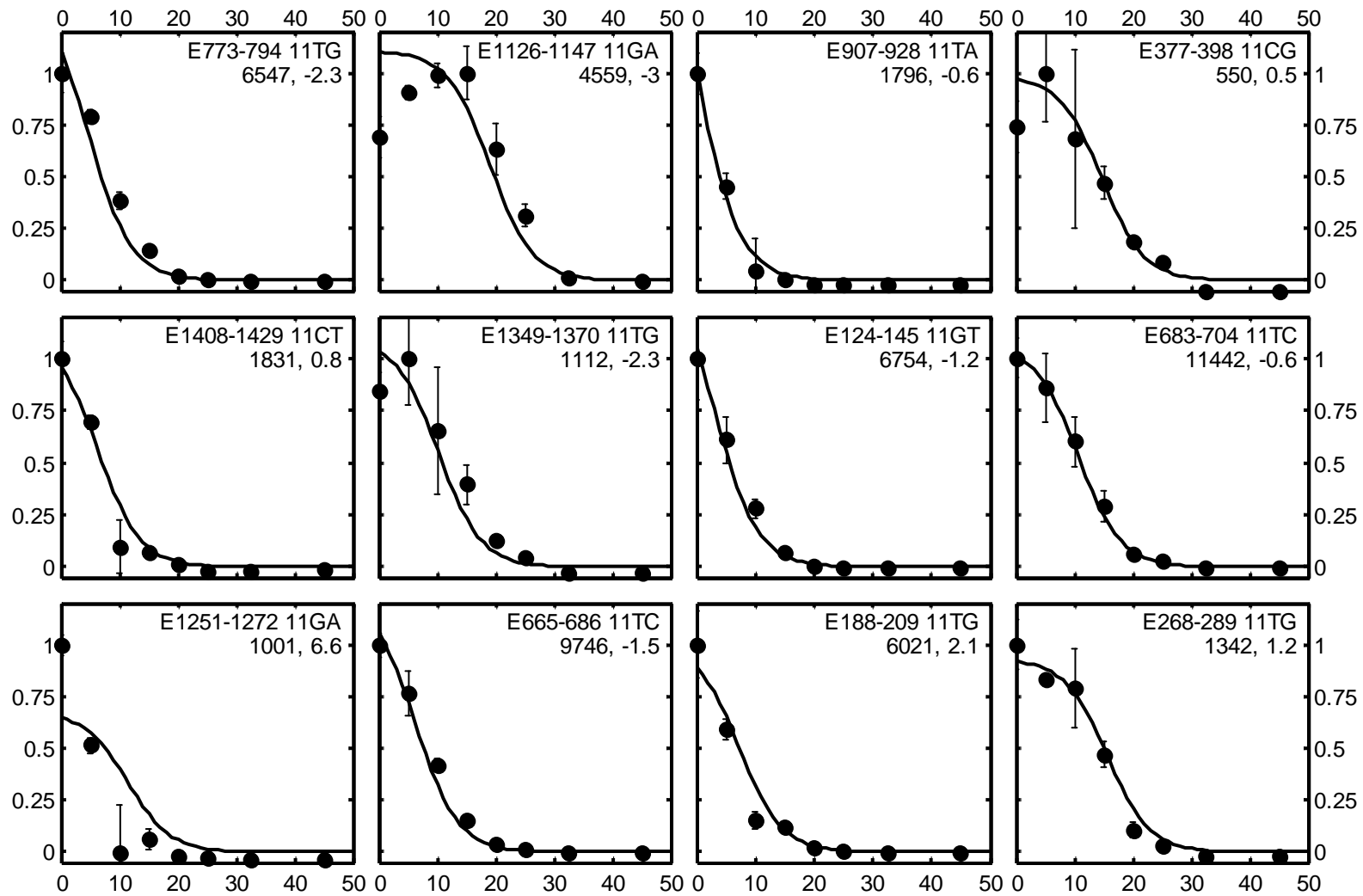
Probes 1-8:



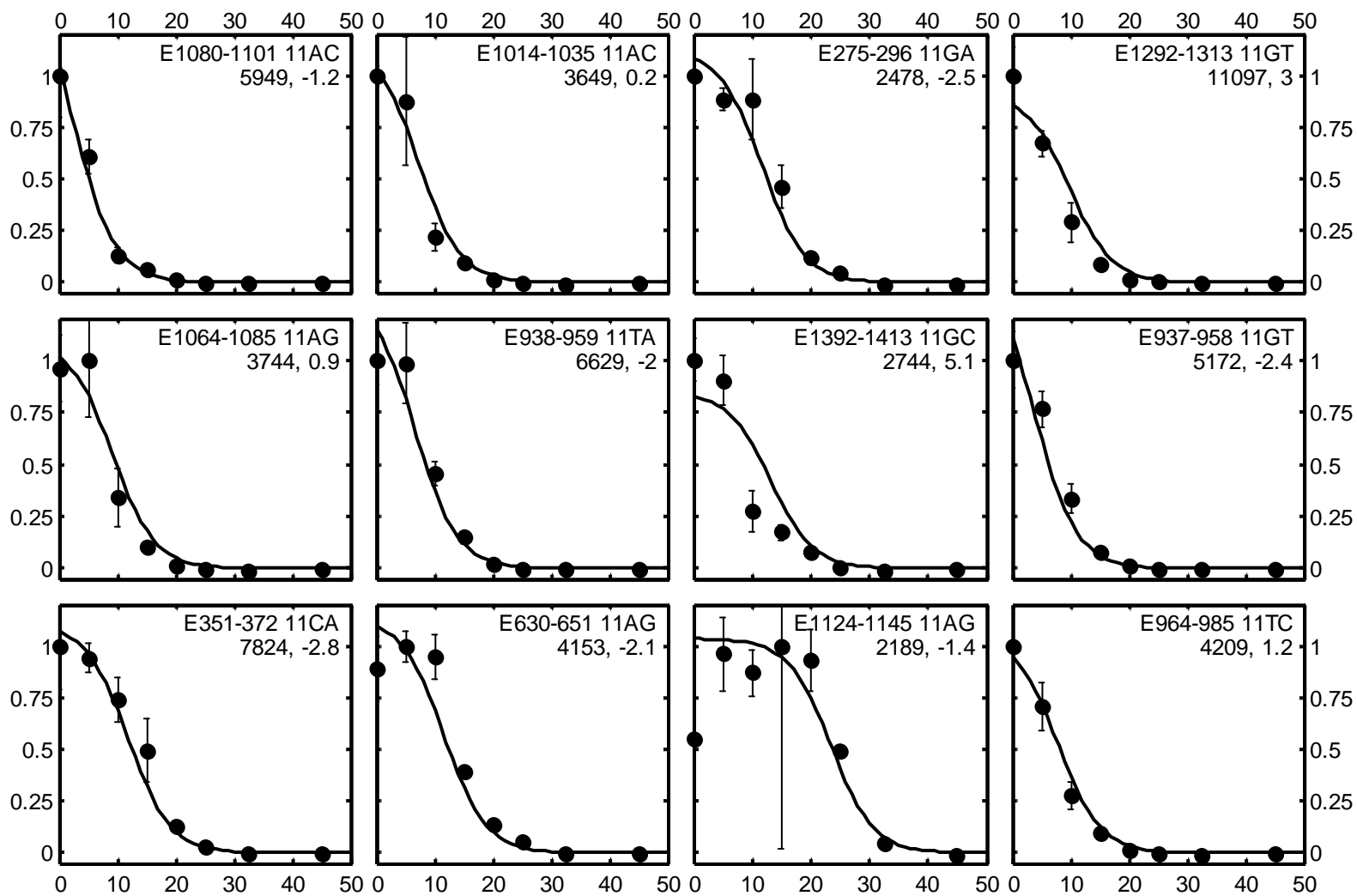
Probes 9-20:

Probes 21-32:

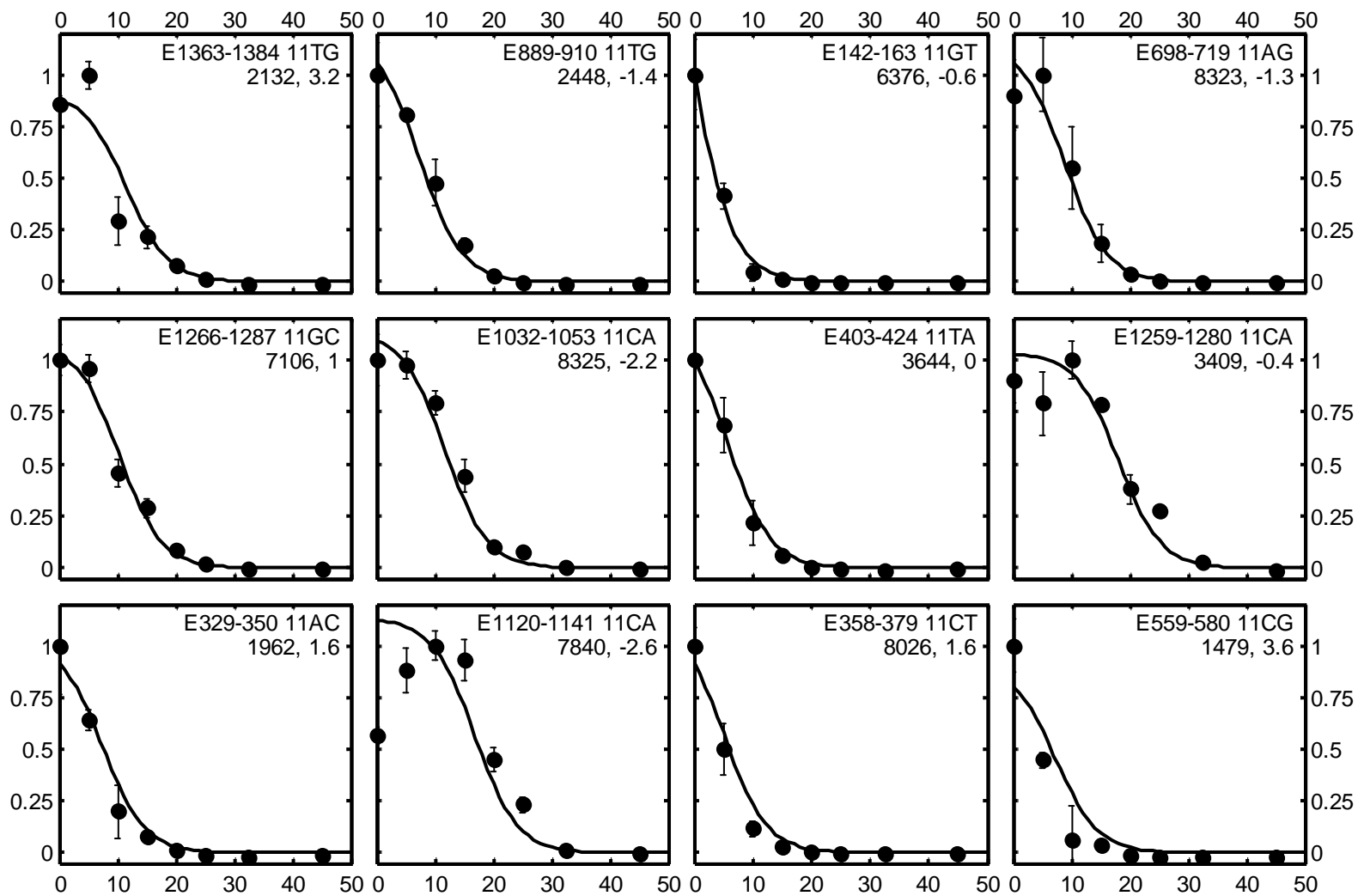
Probes 33-44:

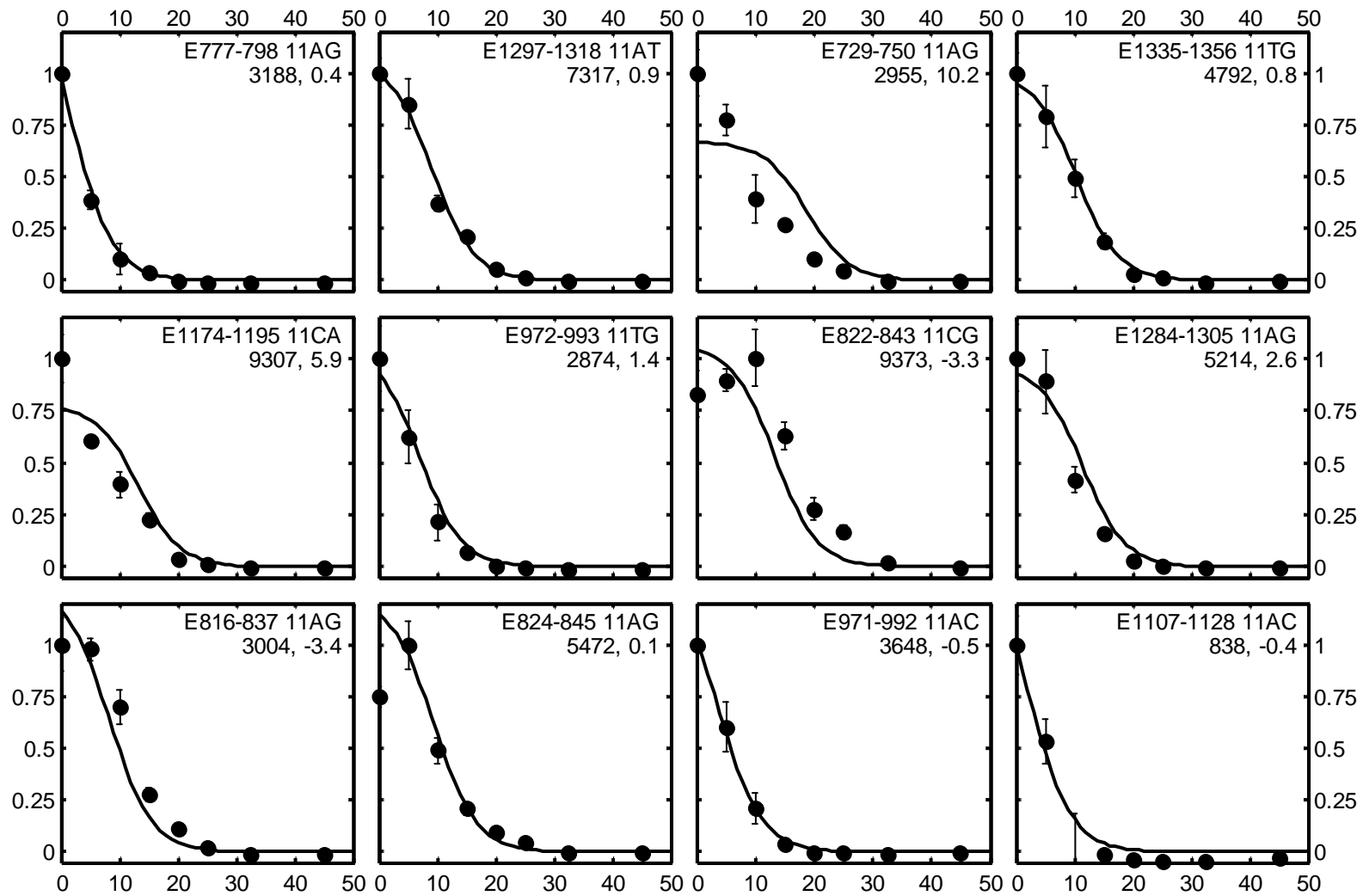
Probes 45-56:

Probes 57-68:



Probes 69-80:



Probes 81-92:

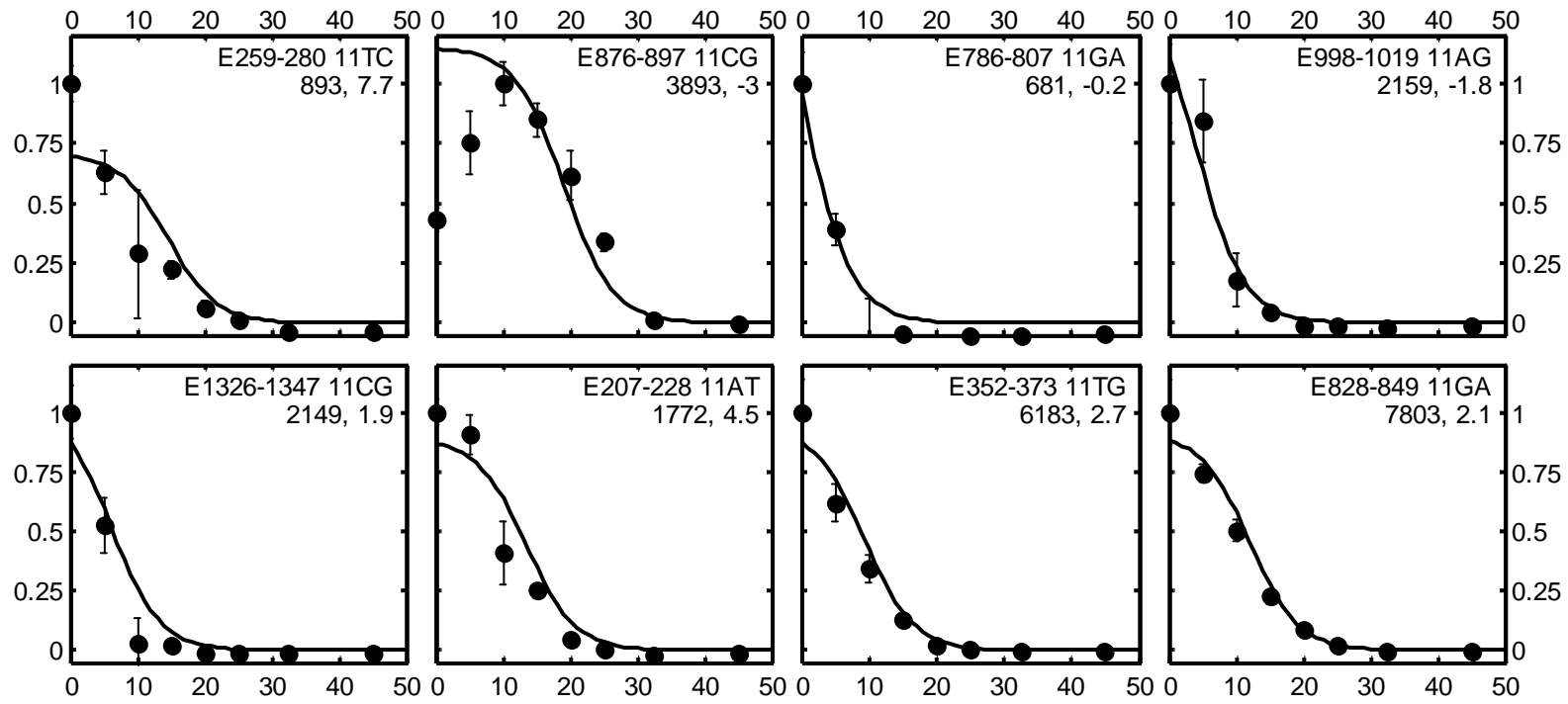
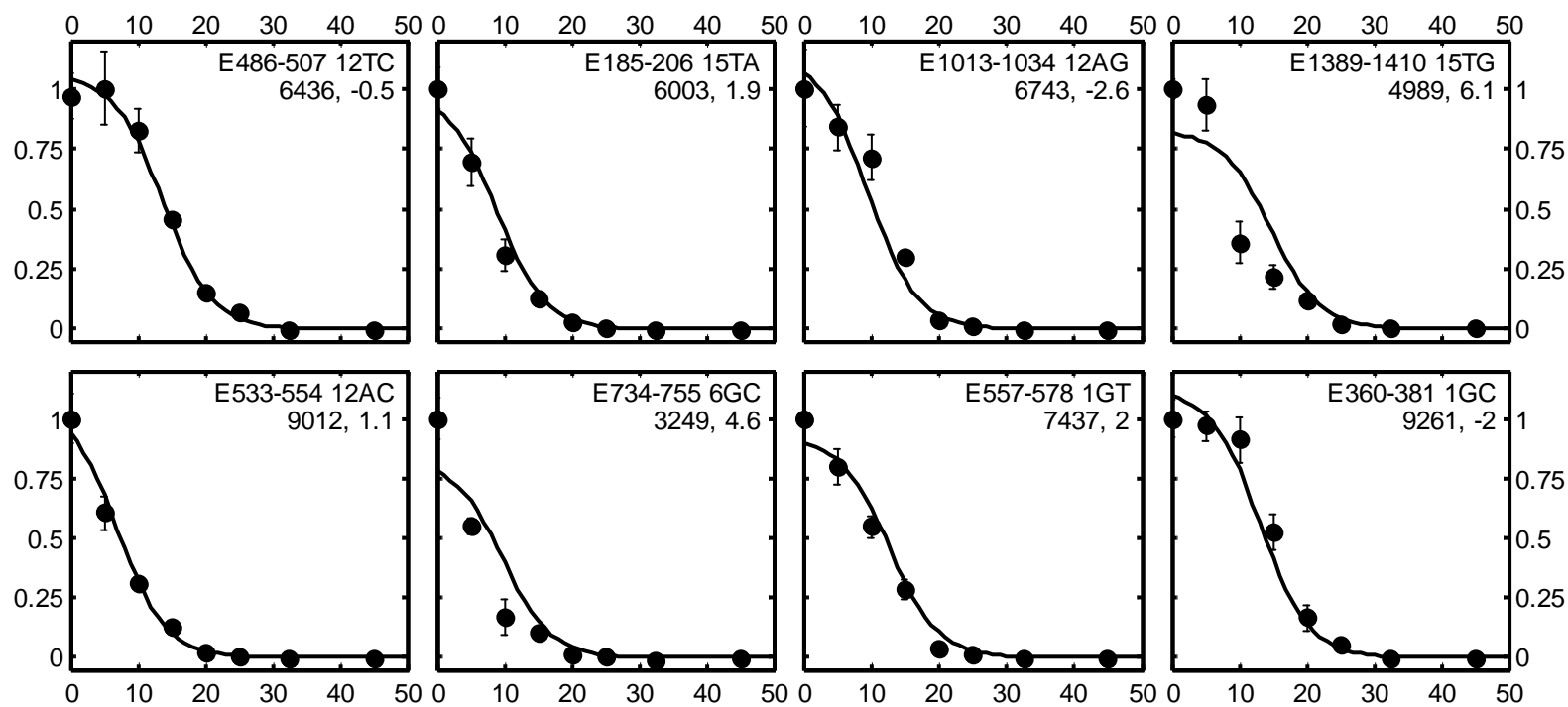
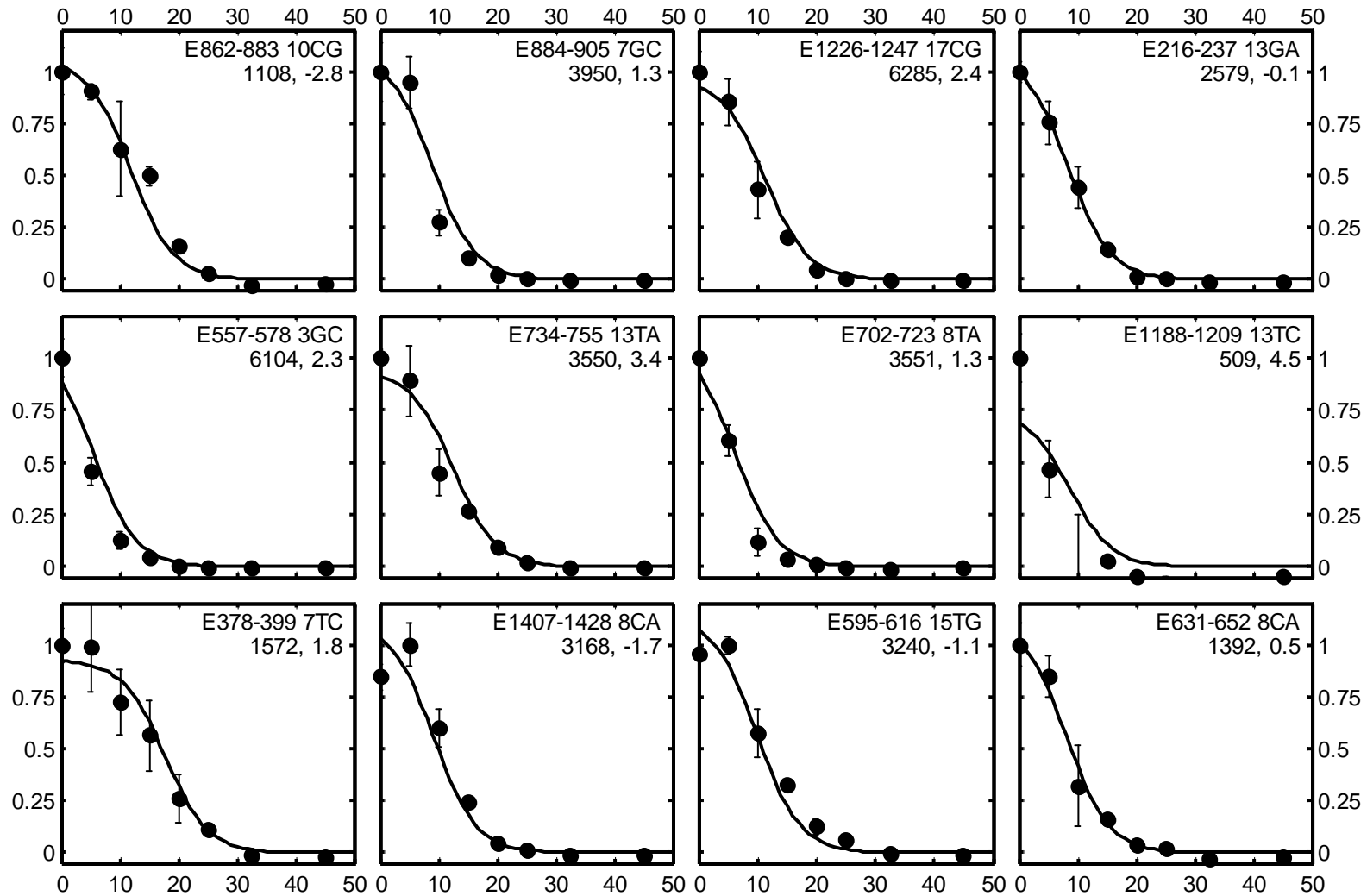
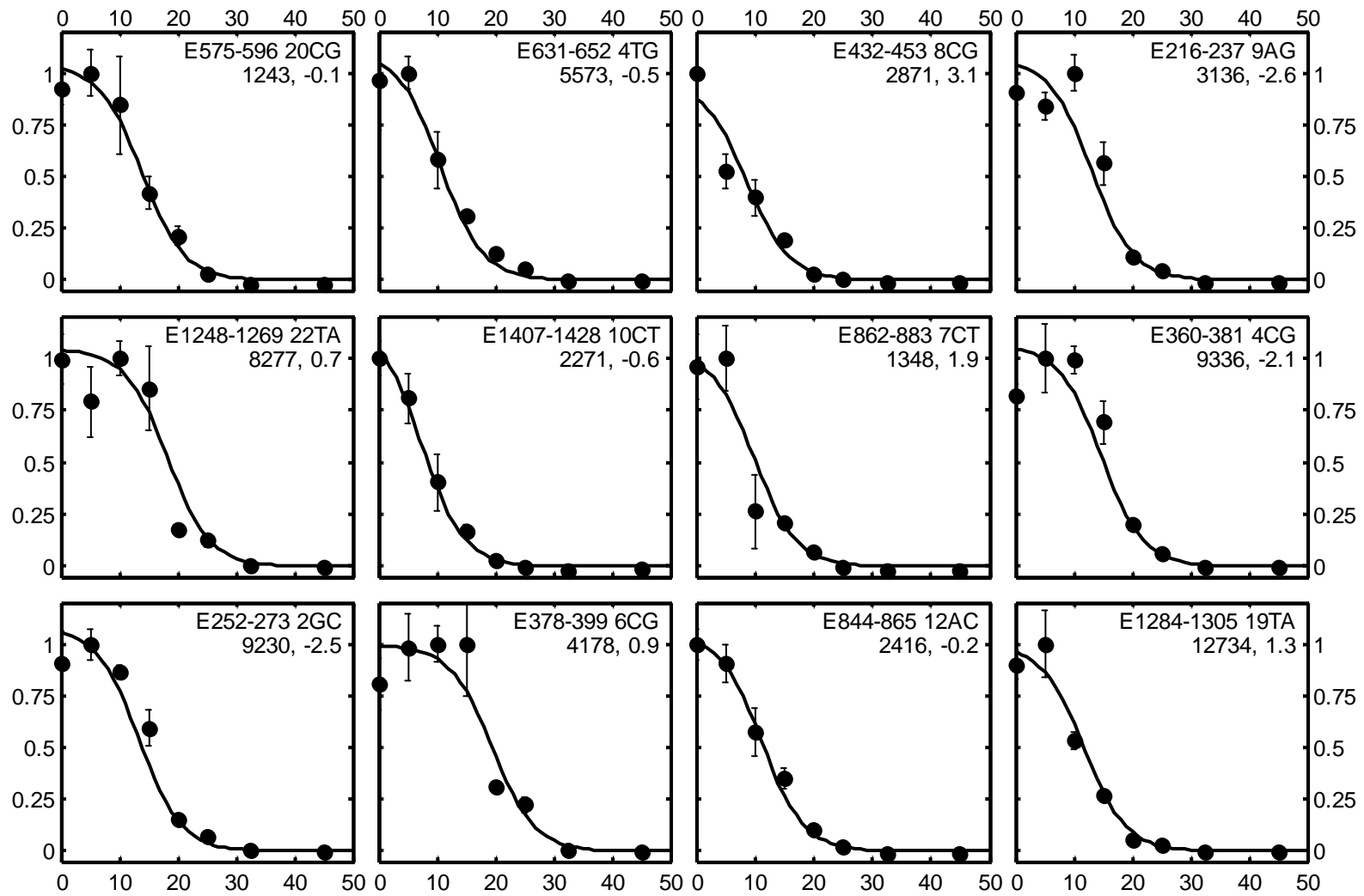
Probes 93-100:

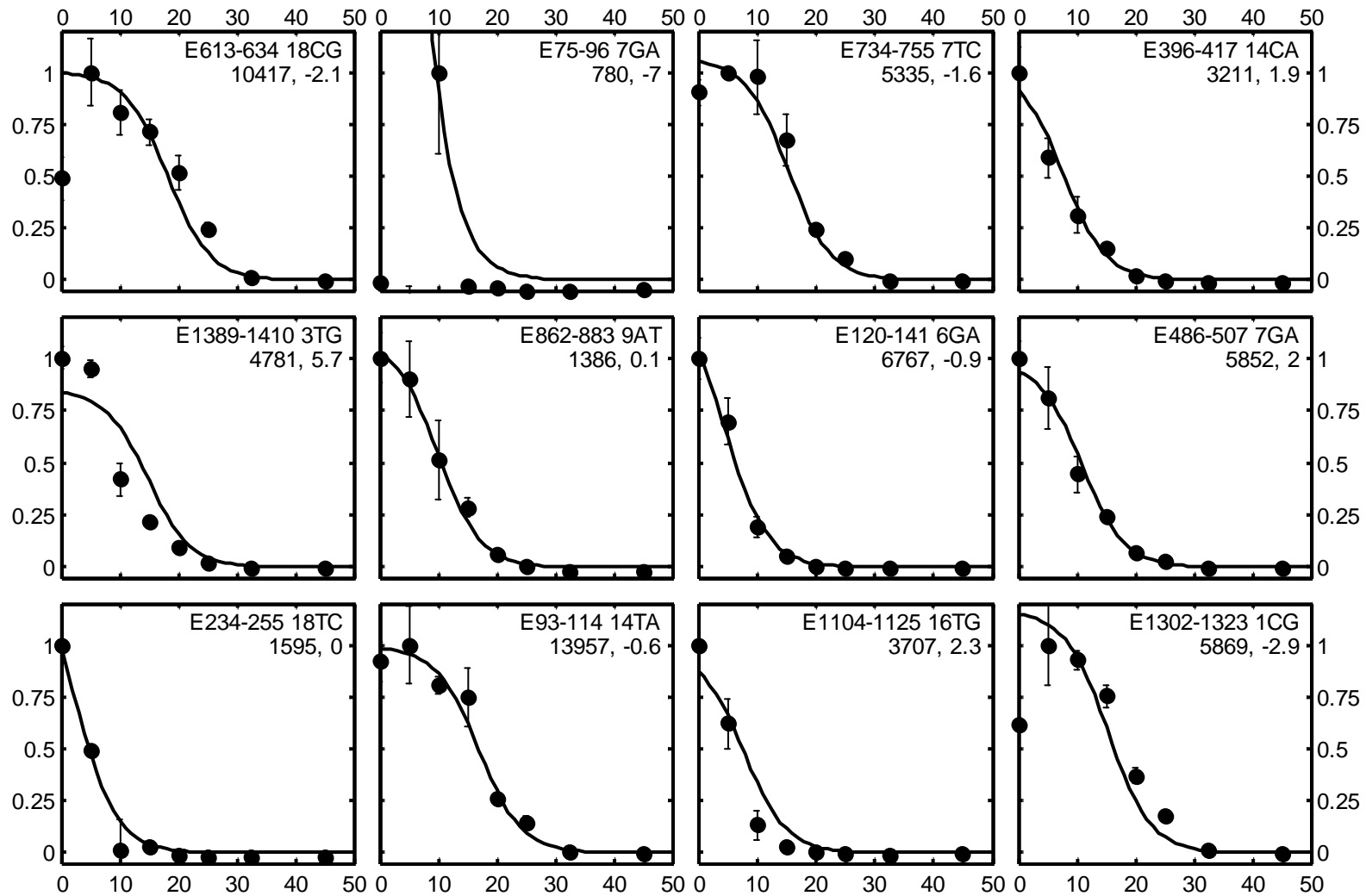
Figure S1C. Experimental (circles) and theoretical (curves) formamide dissociation profiles of 100 randomly selected probes from PosM set (Table 2). The labels (upper right corner of each graph) indicate probe name (top), I_{\max} (bottom, first number), and $\text{err}[\text{FA}]_{1/2}$ value (bottom, second number). See main manuscript for the descriptions of probe names and I_{\max} and $\text{err}[\text{FA}]_{1/2}$ values. x-axis, formamide concentration; y-axis, normalized signal intensity; error bars, standard deviations.

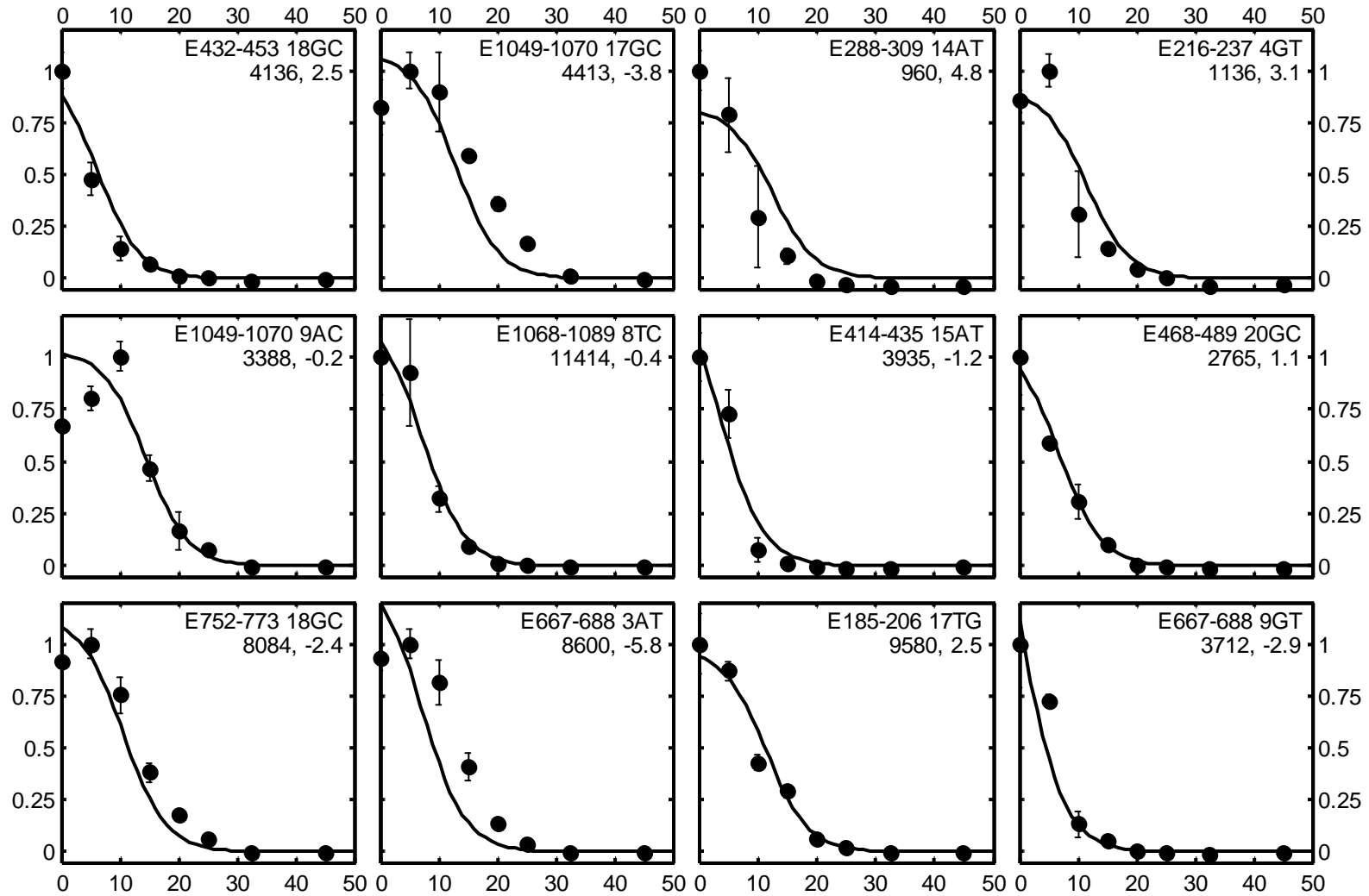
Probes 1-8:

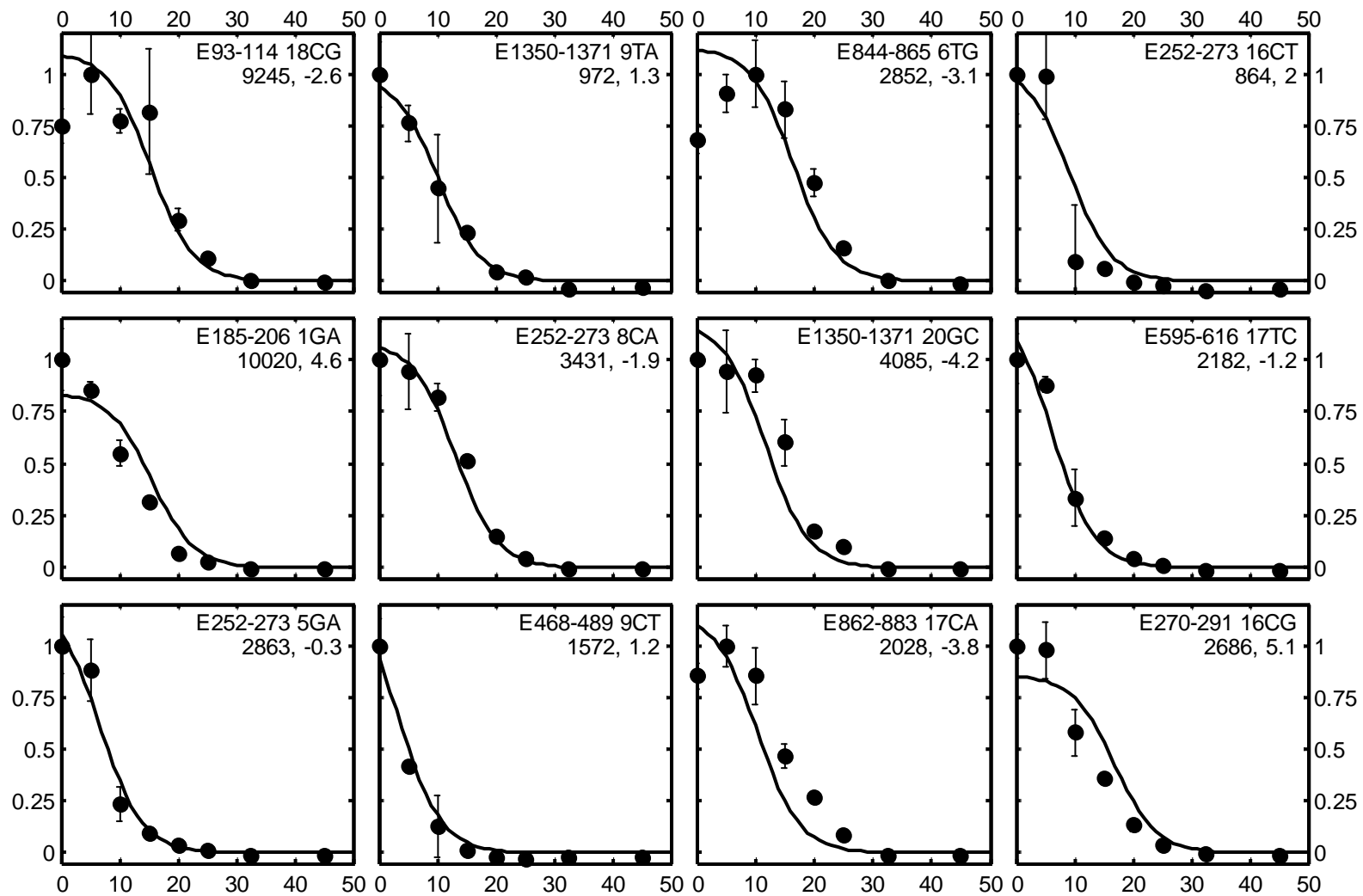


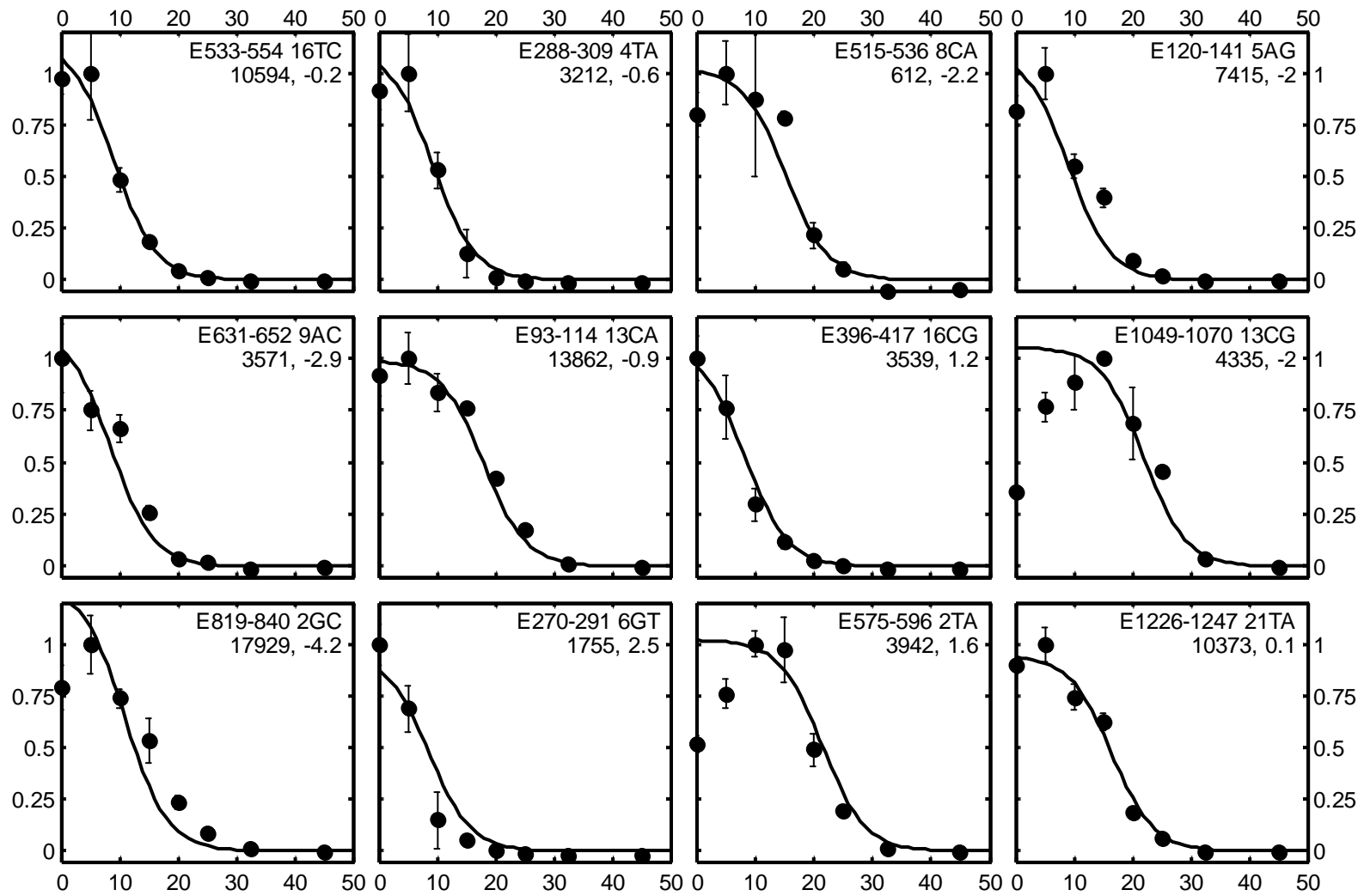
Probes 9-20:

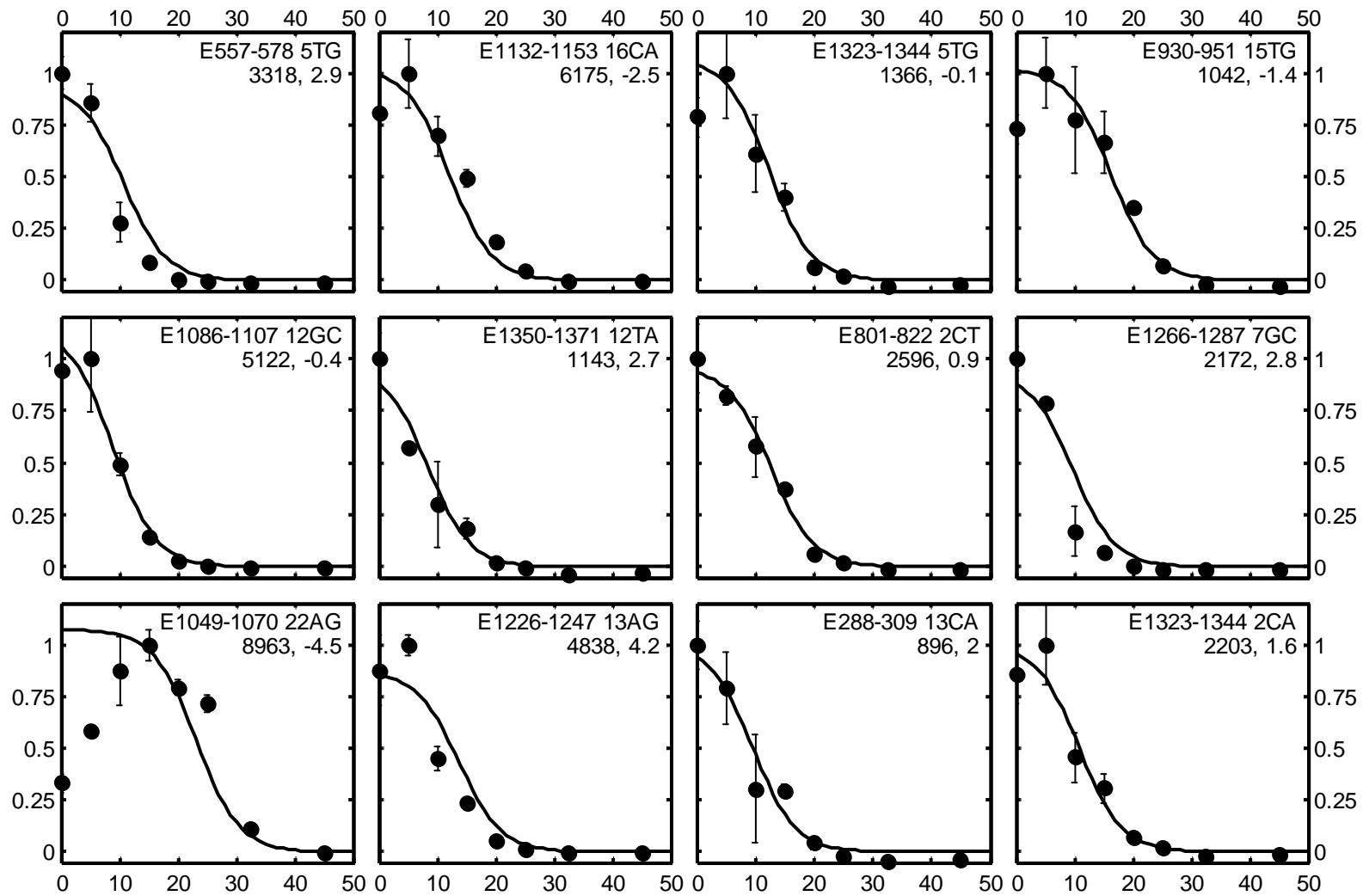
Probes 21-32:

Probes 33-44:

Probes 45-56:

Probes 57-68:

Probes 69-80:

Probes 81-92:

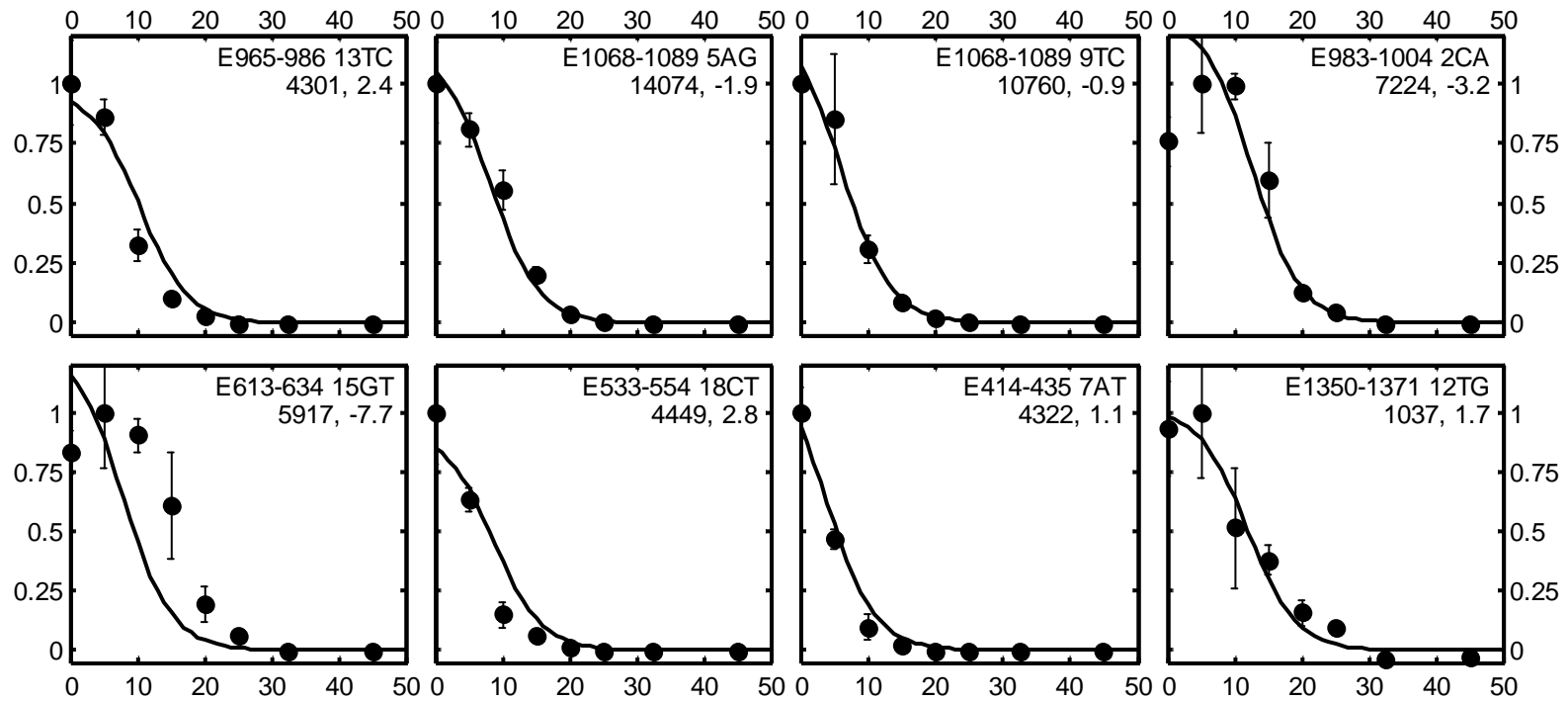
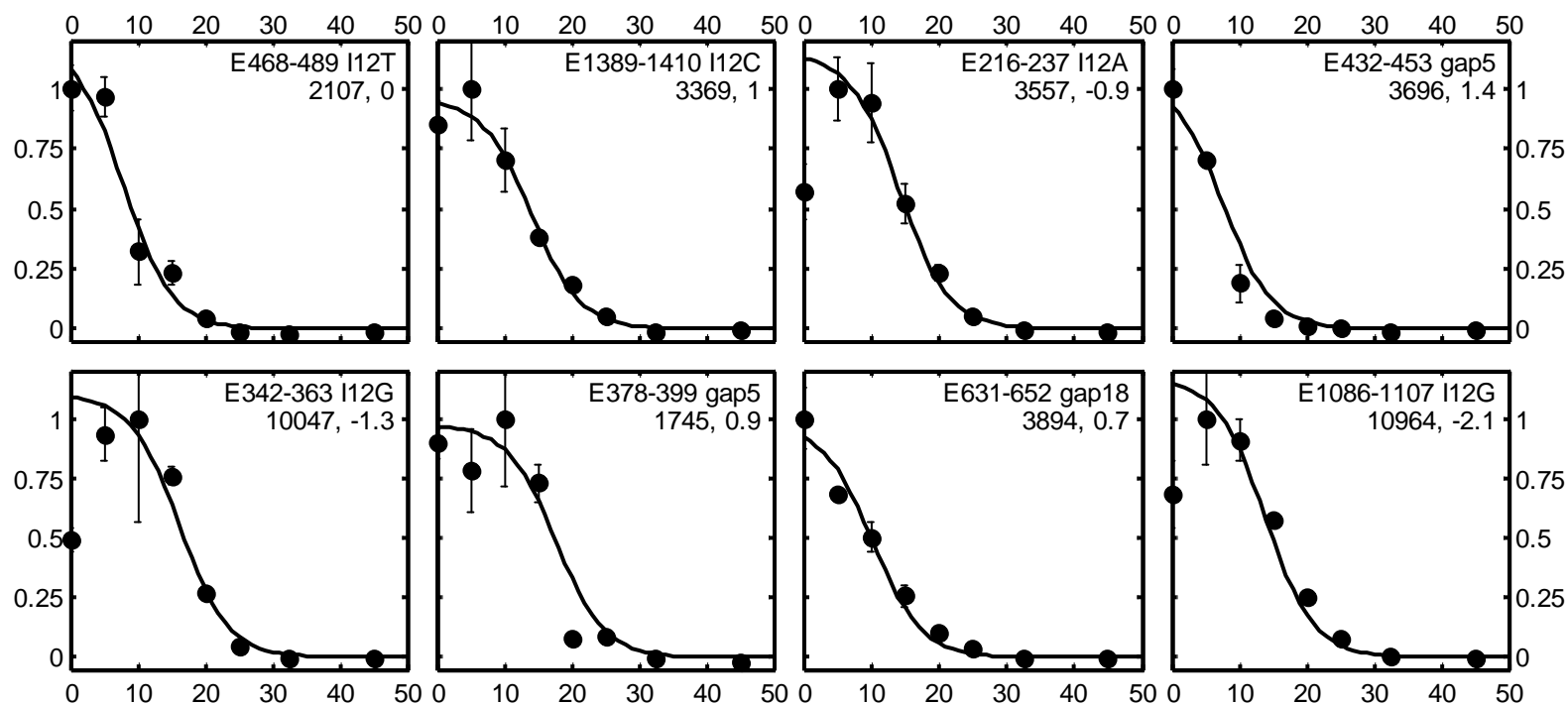
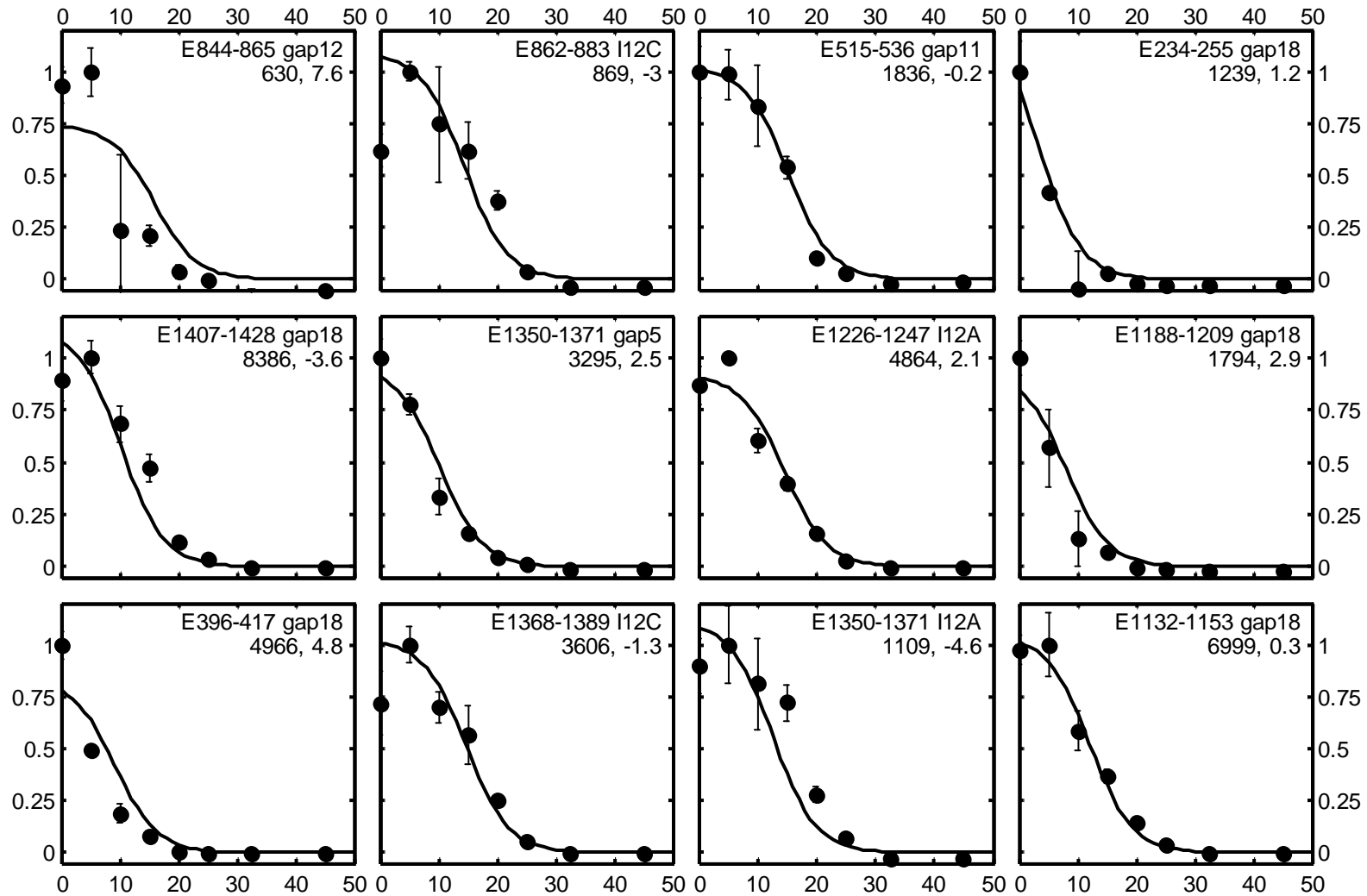
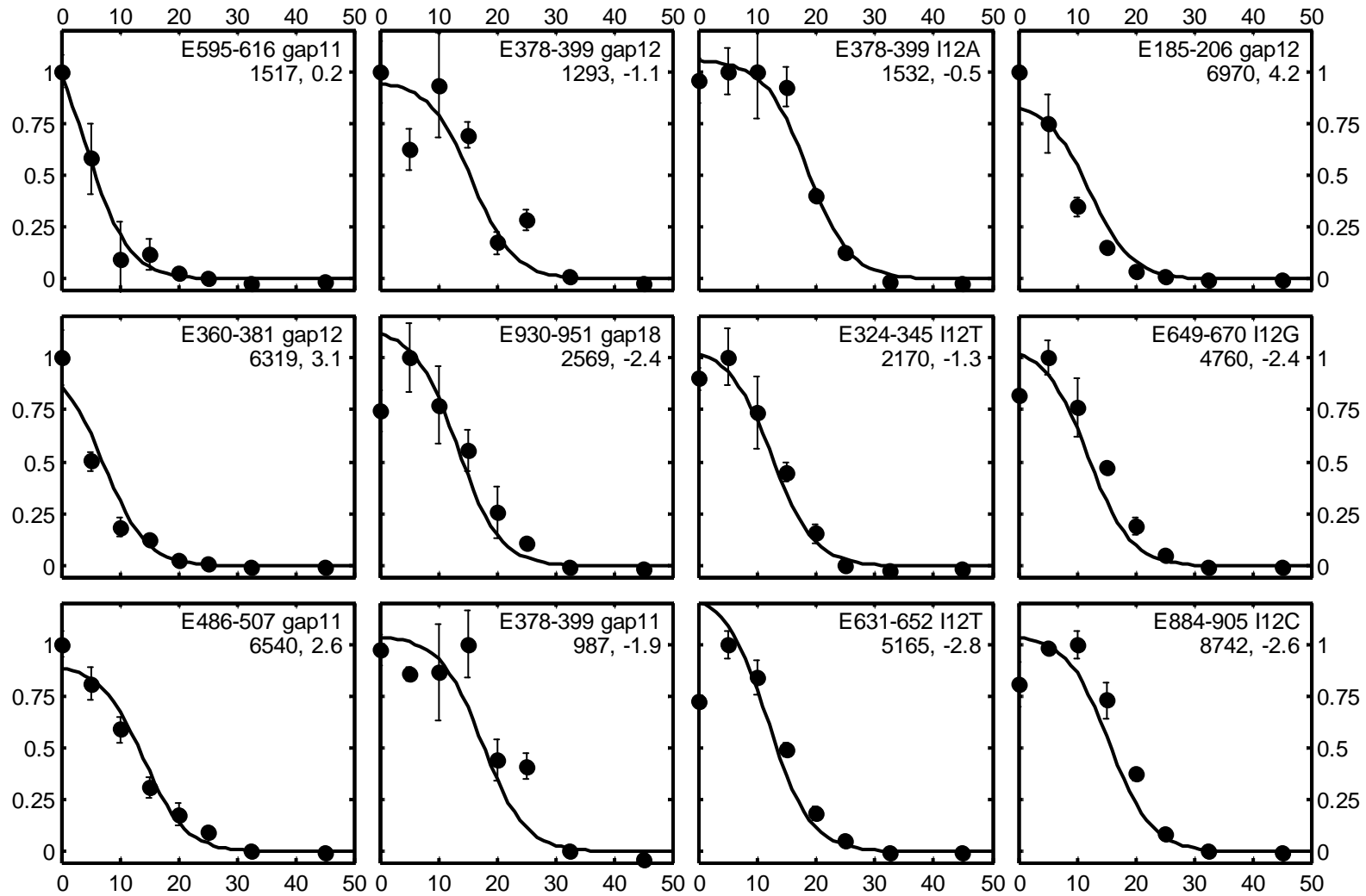
Probes 93-100:

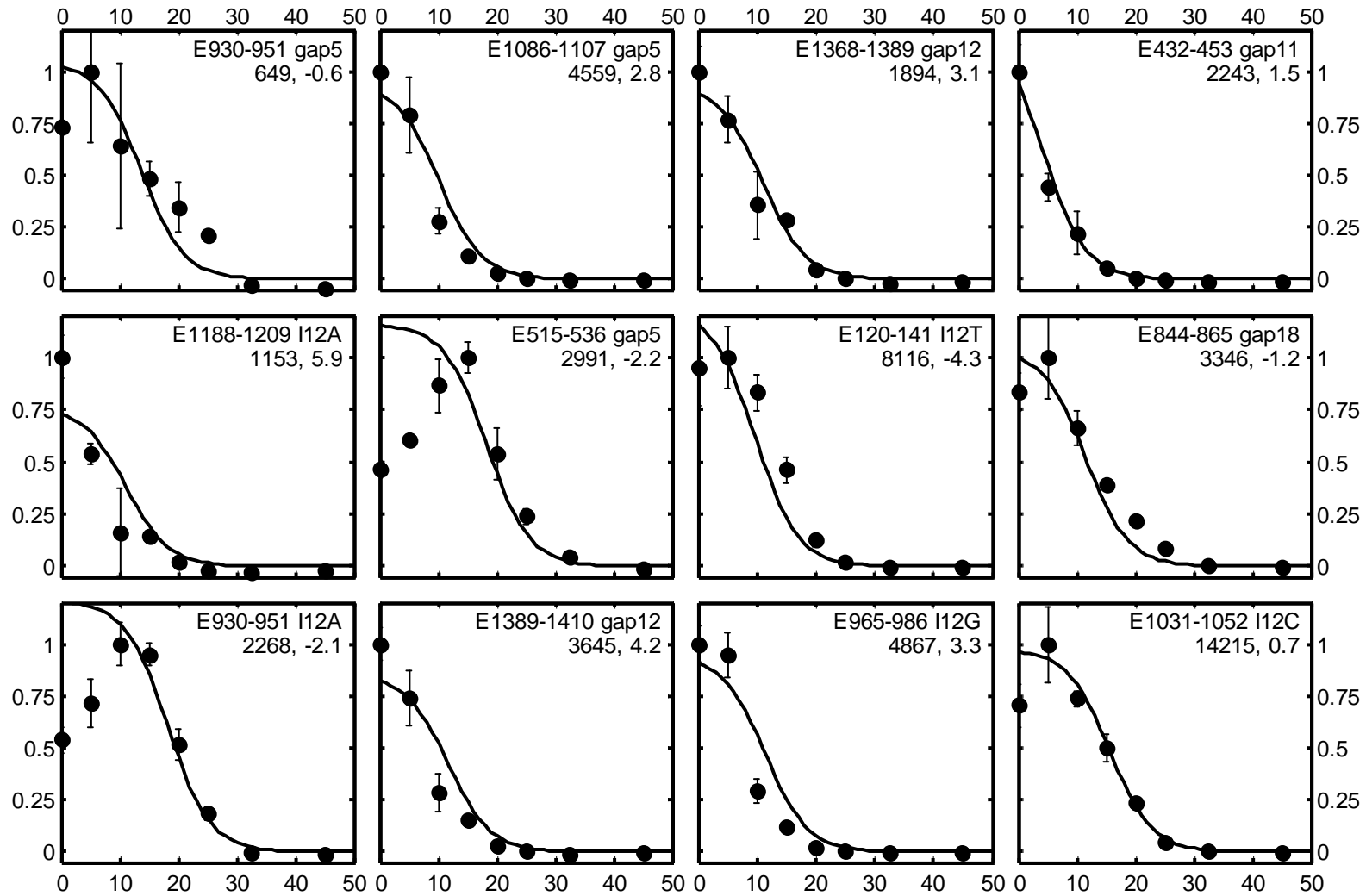
Figure S1D Experimental (circles) and theoretical (curves) formamide dissociation profiles of 100 randomly selected probes from Gap and Insertion sets (Table 2). The labels (upper right corner of each graph) indicate probe name (top), I_{\max} (bottom, first number), and $\text{err}[\text{FA}]_{1/2}$ value (bottom, second number). See main manuscript for the descriptions of probe names and I_{\max} and $\text{err}[\text{FA}]_{1/2}$ values. x-axis, formamide concentration; y-axis, normalized signal intensity; error bars, standard deviations.

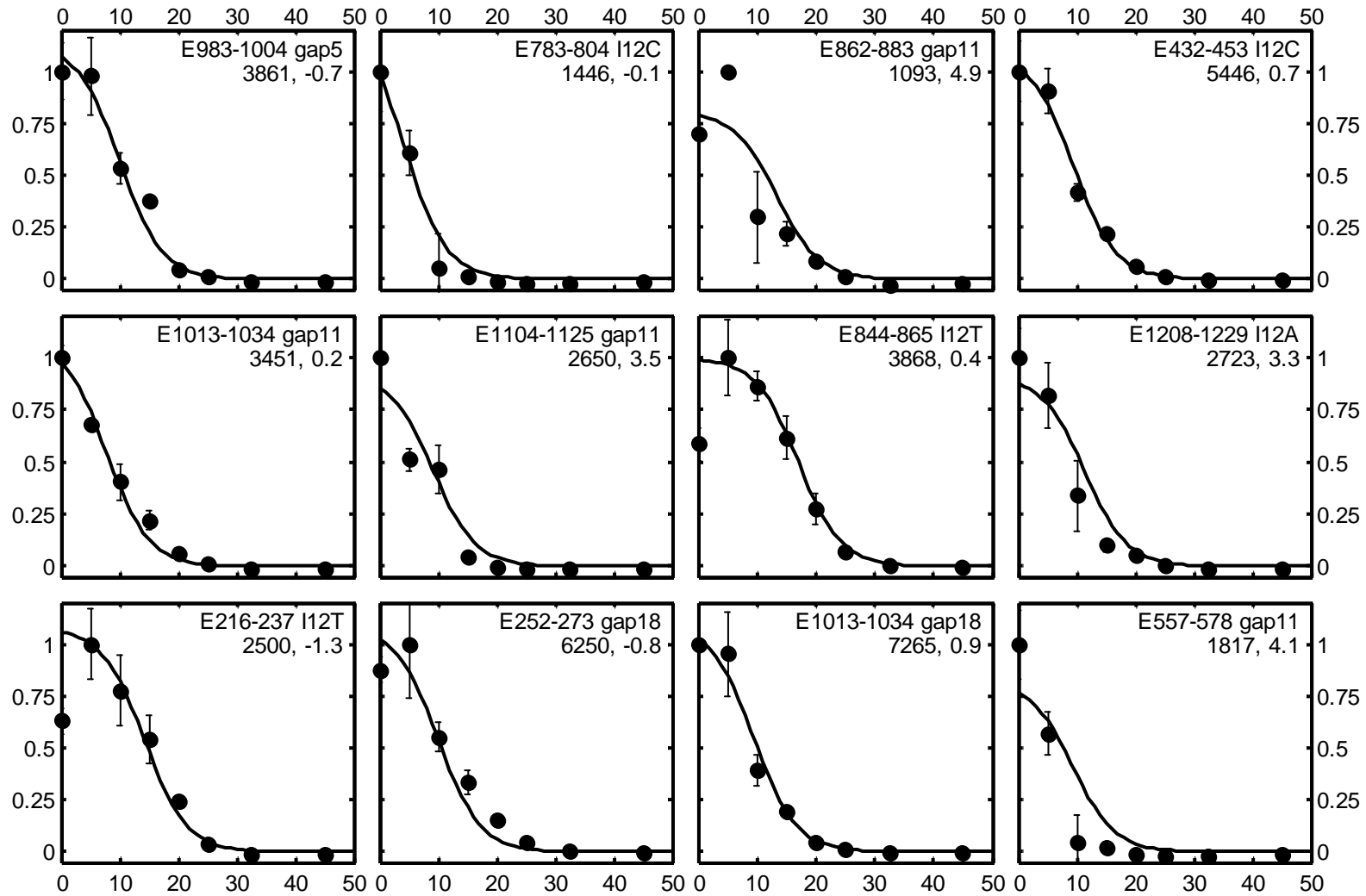
Probes 1-8:

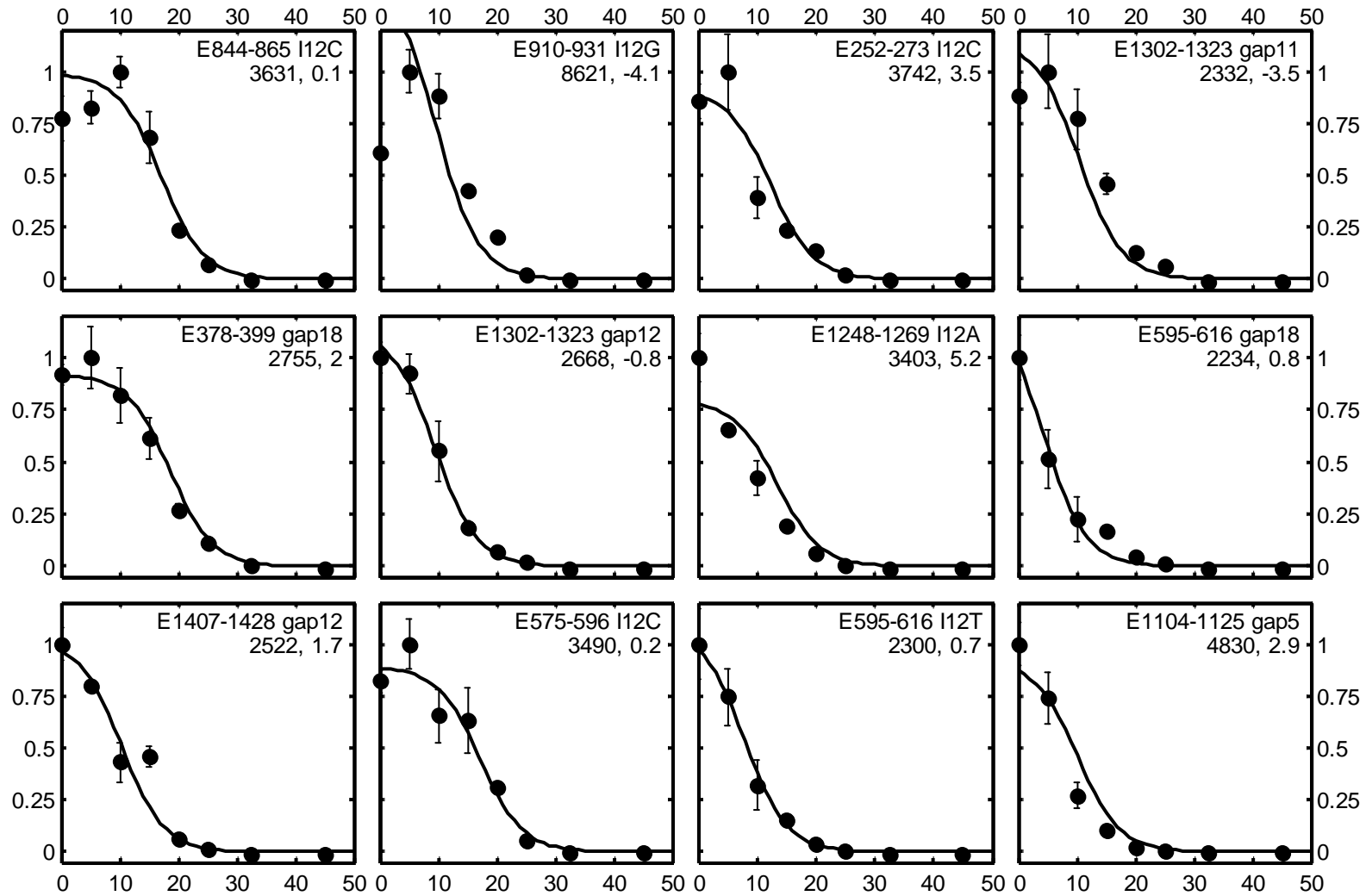


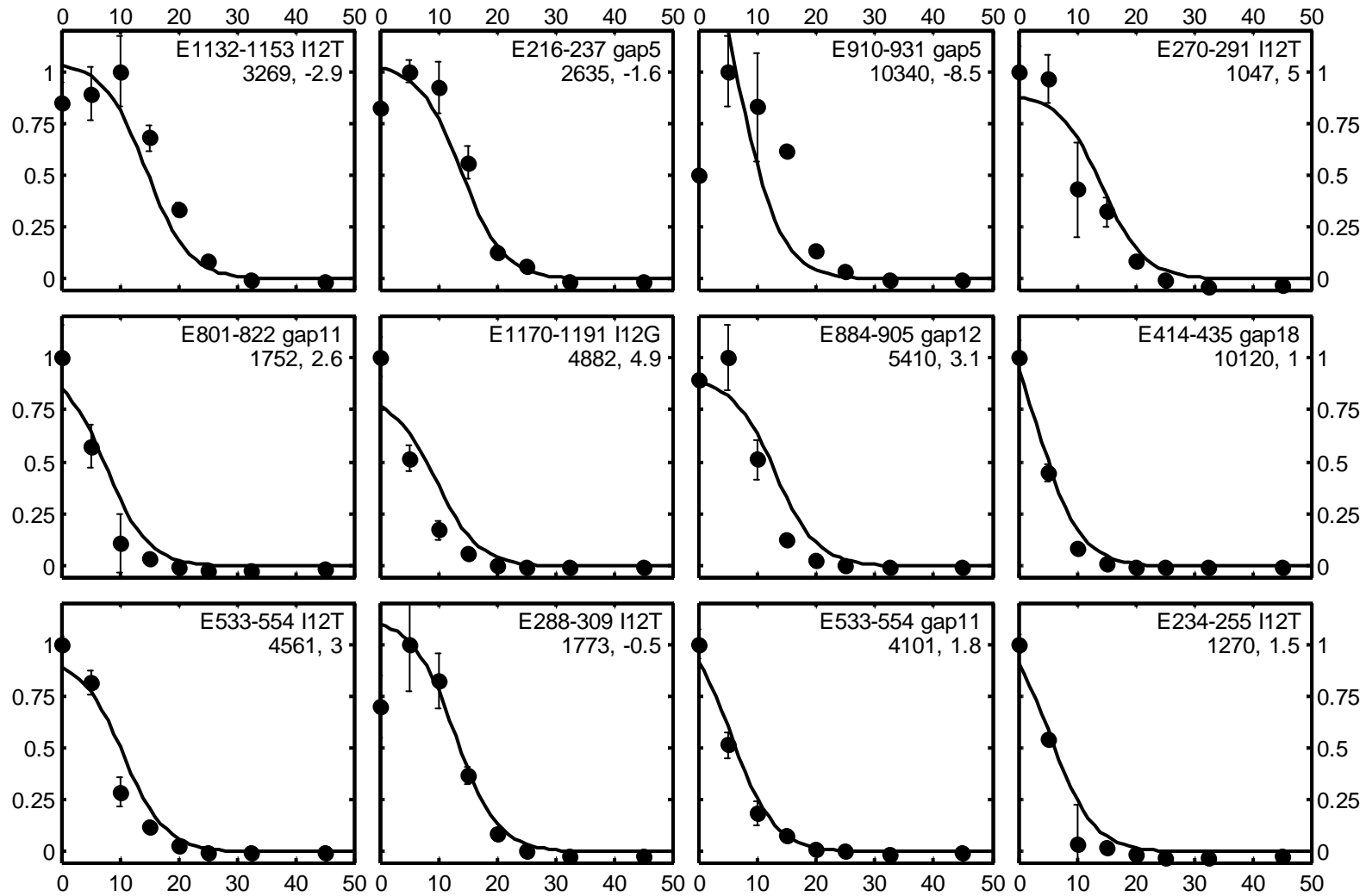
Probes 9-20:

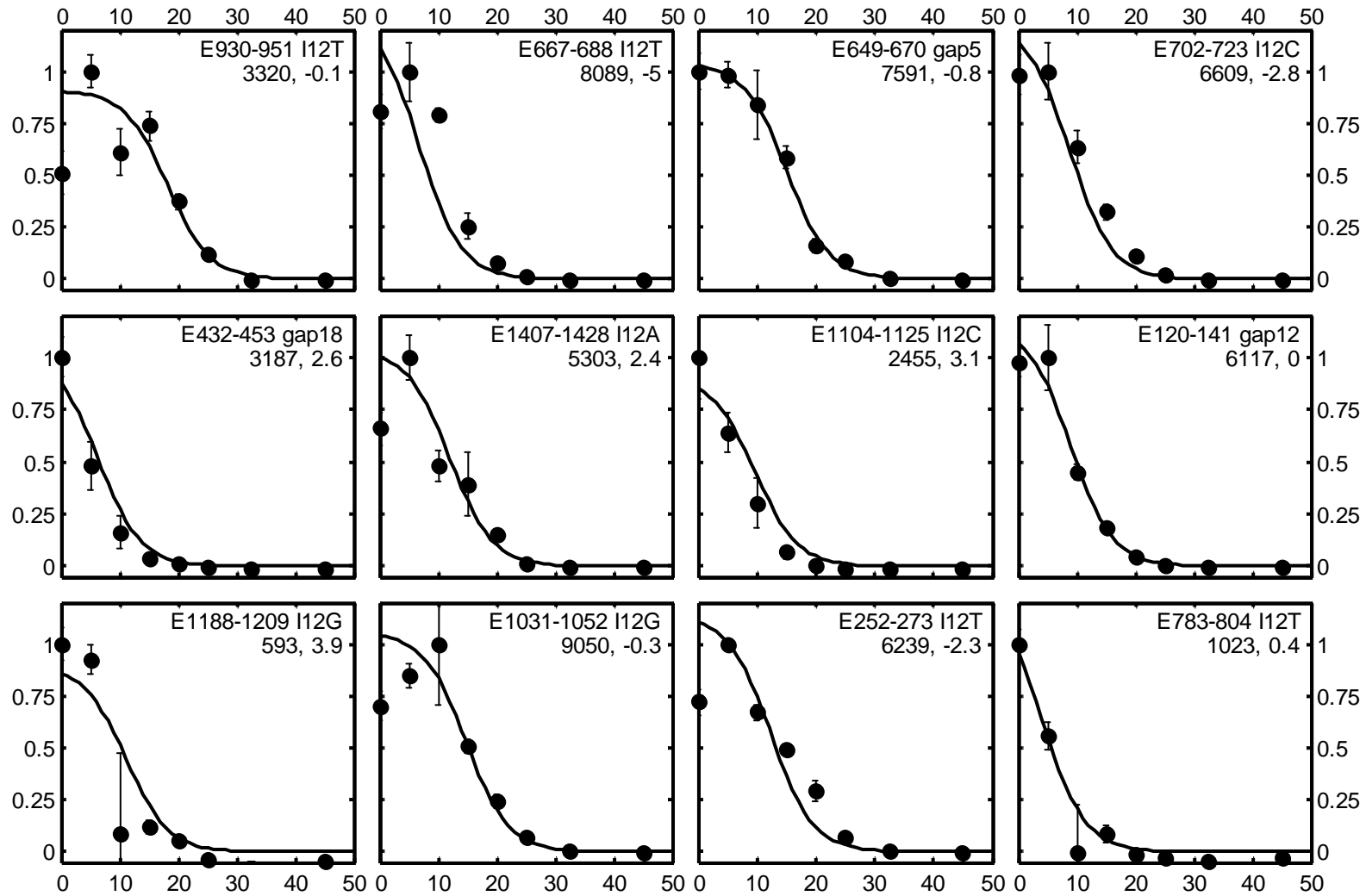
Probes 21-32:

Probes 33-44:

Probes 45-56:

Probes 57-68:

Probes 69-80:

Probes 81-92:

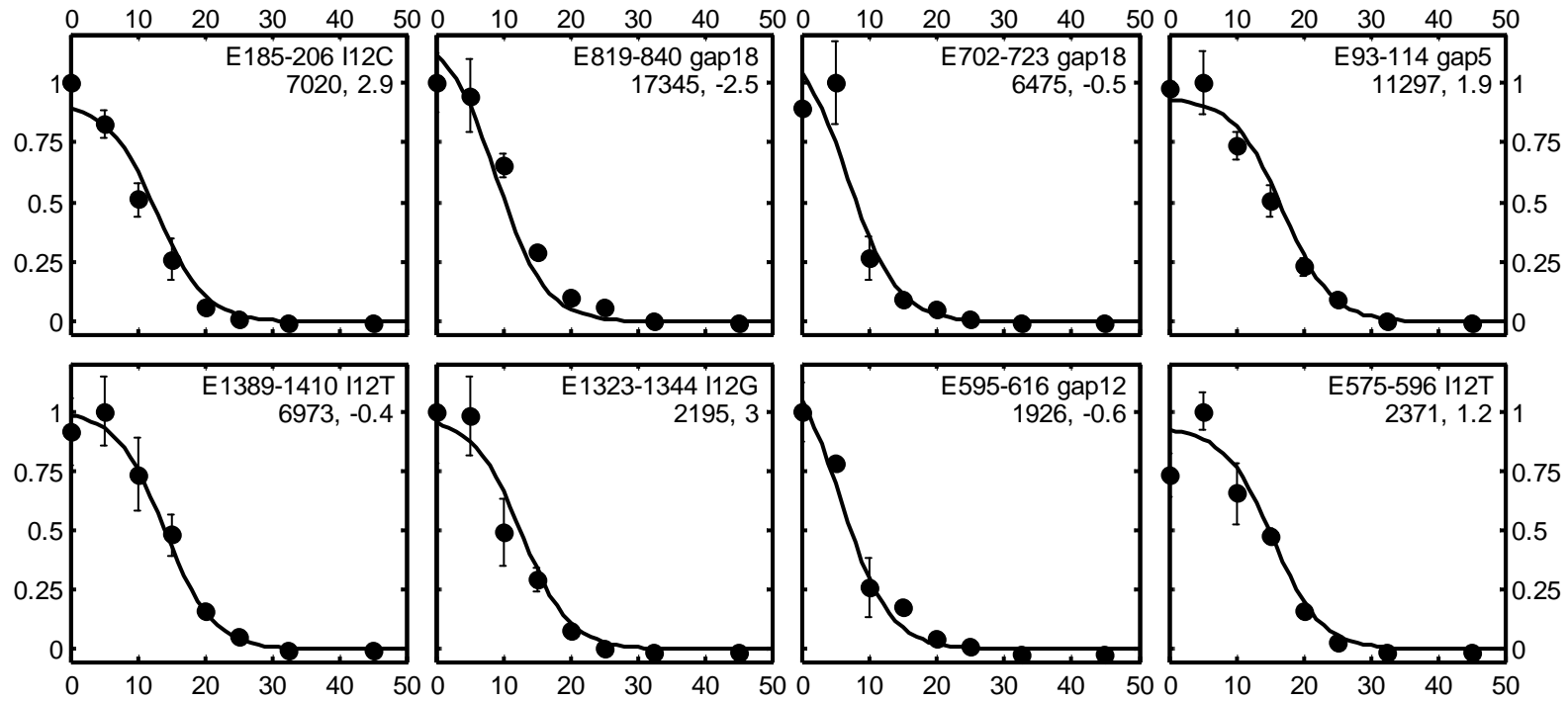
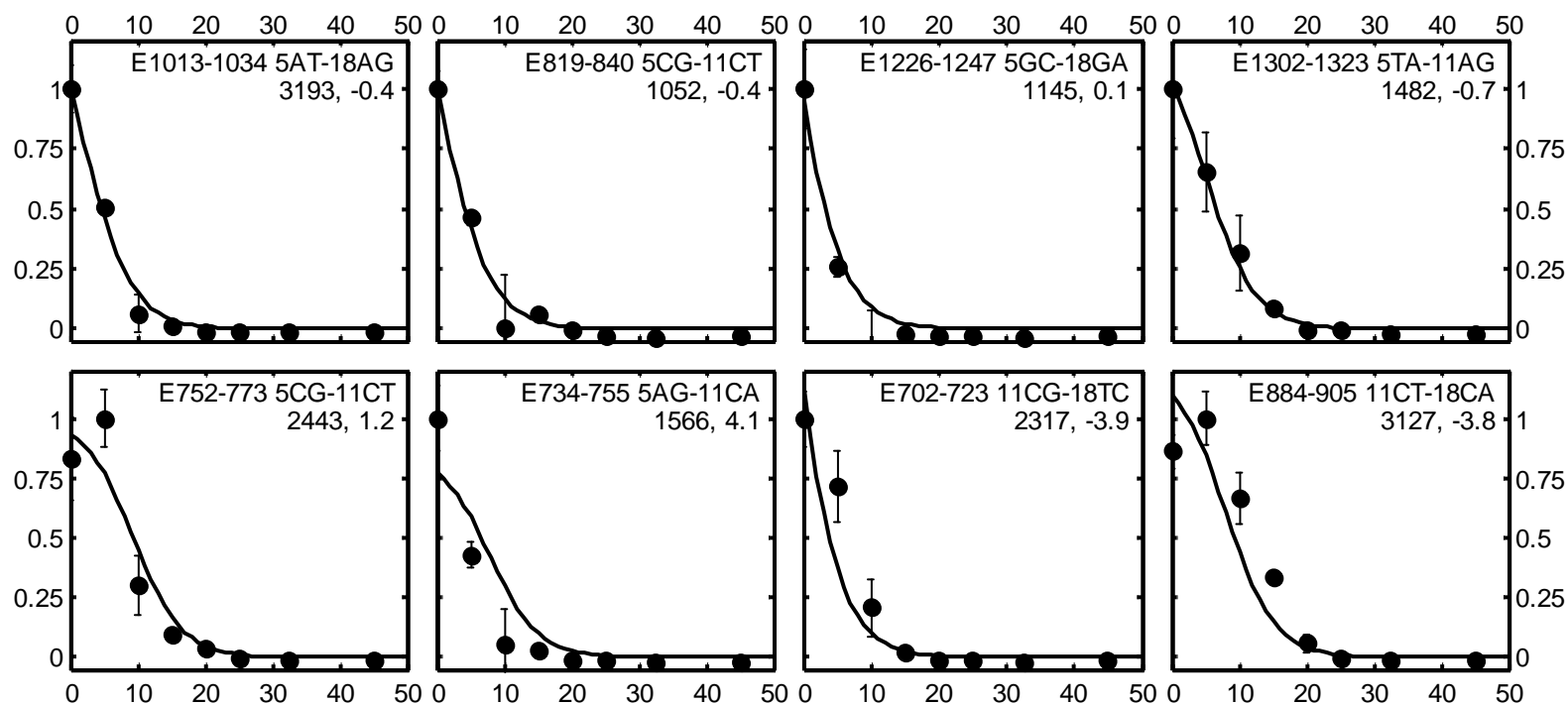
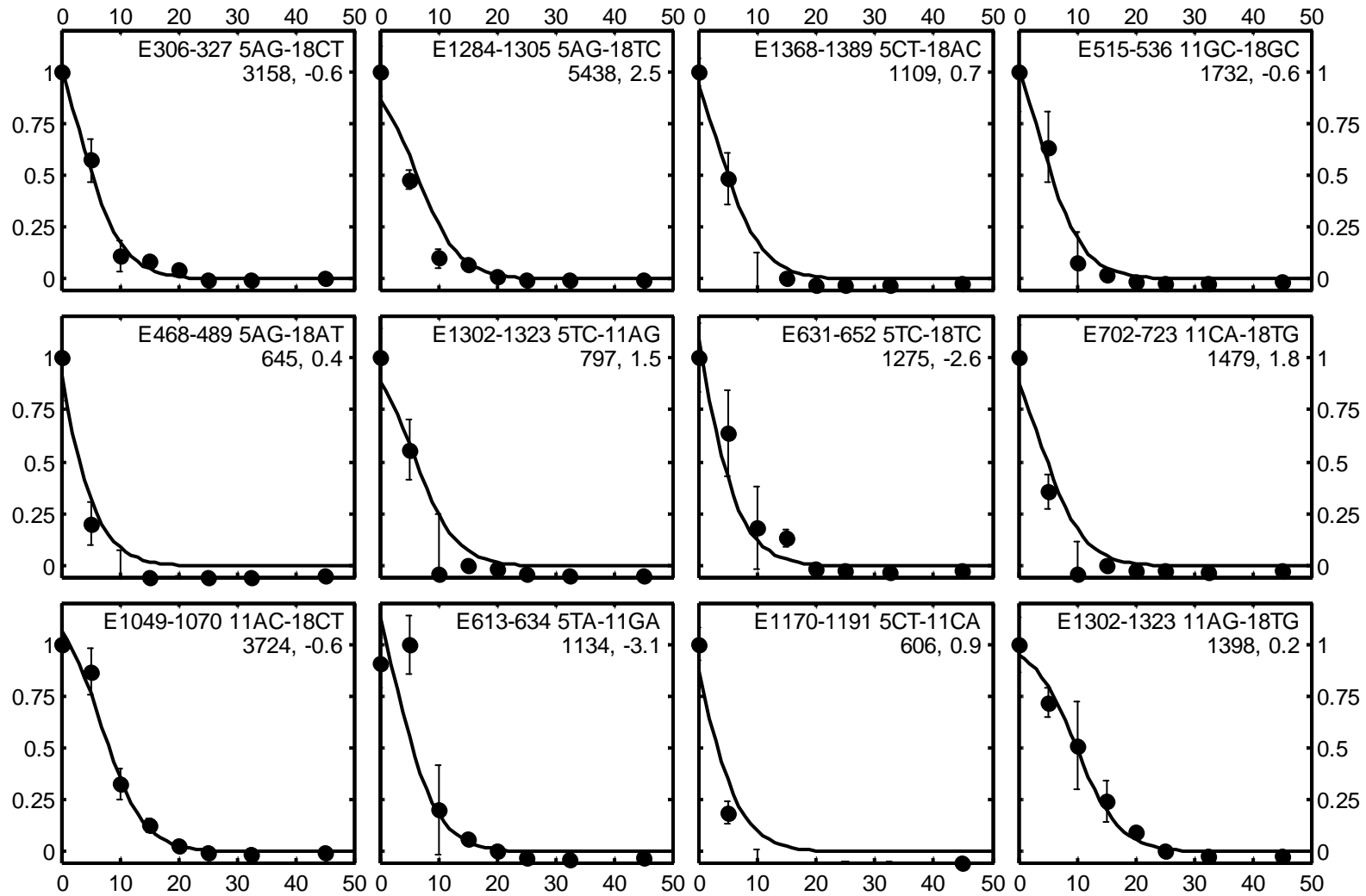
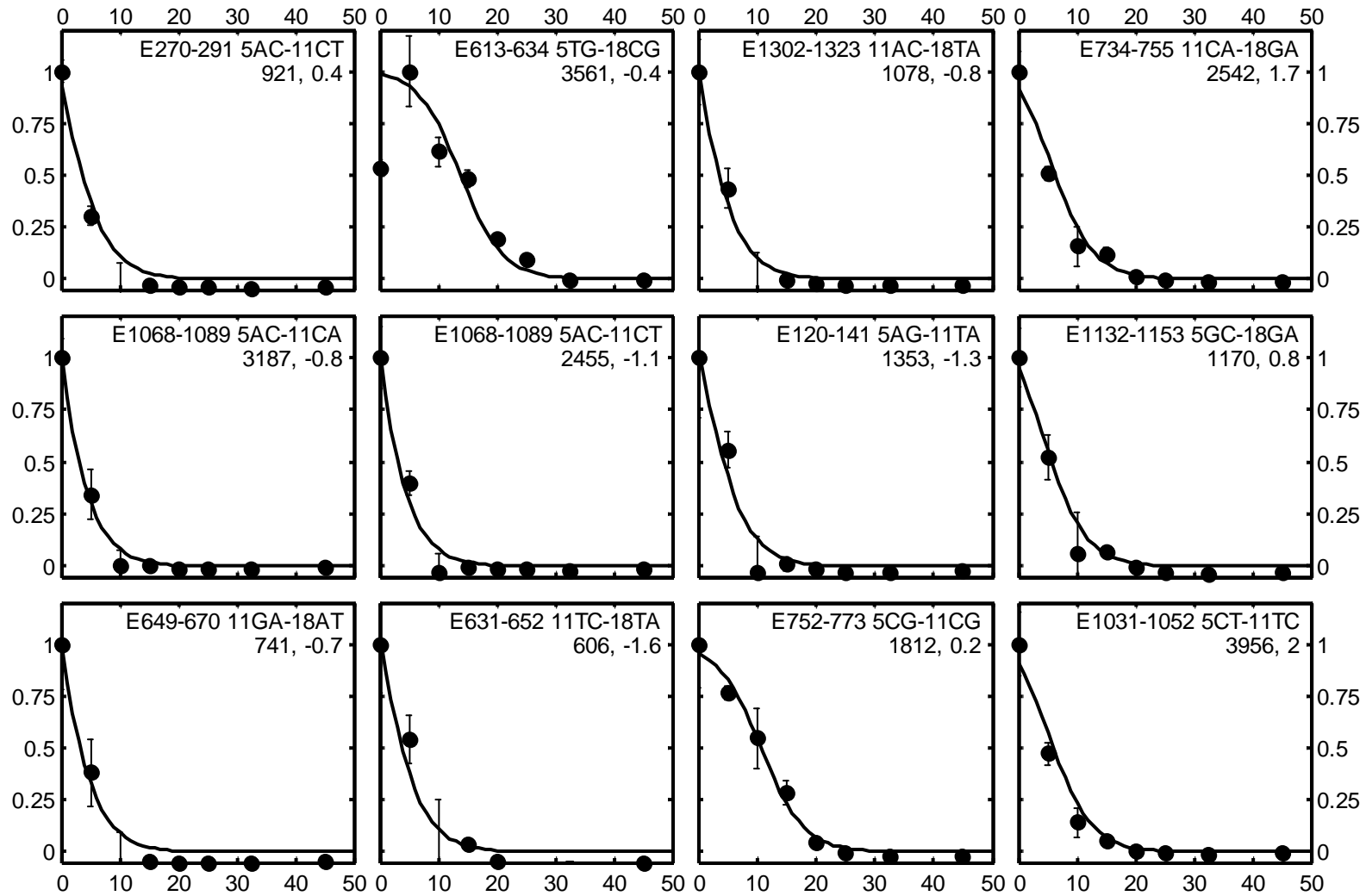
Probes 93-100:

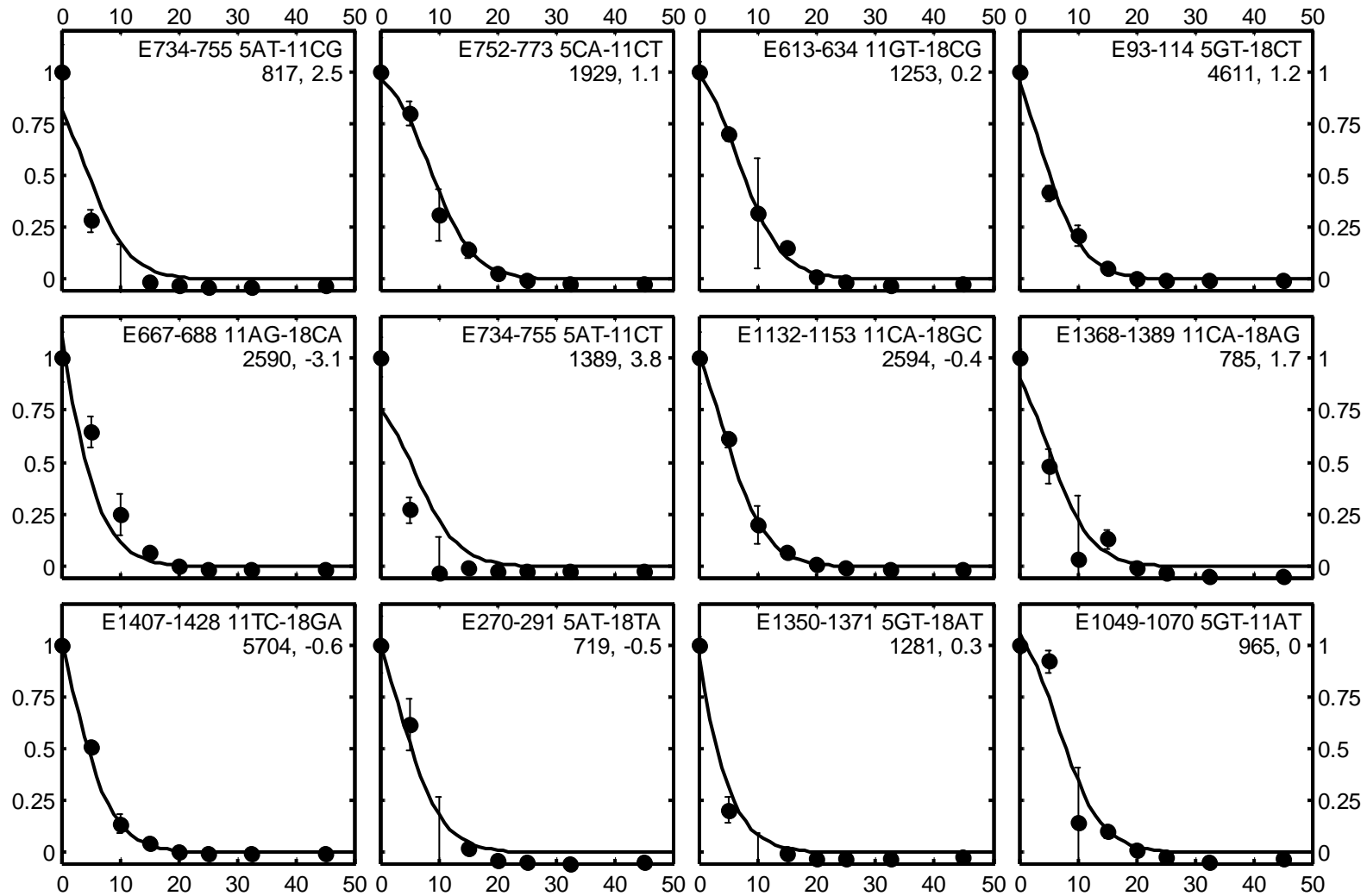
Figure S1E. Experimental (circles) and theoretical (curves) formamide dissociation profiles of 100 randomly selected probes from TwoM set (Table 2). The labels (upper right corner of each graph) indicate probe name (top), I_{\max} (bottom, first number), and $\text{err}[\text{FA}]_{1/2}$ value (bottom, second number). See main manuscript for the descriptions of probe names and I_{\max} and $\text{err}[\text{FA}]_{1/2}$ values. x-axis, formamide concentration; y-axis, normalized signal intensity; error bars, standard deviations.

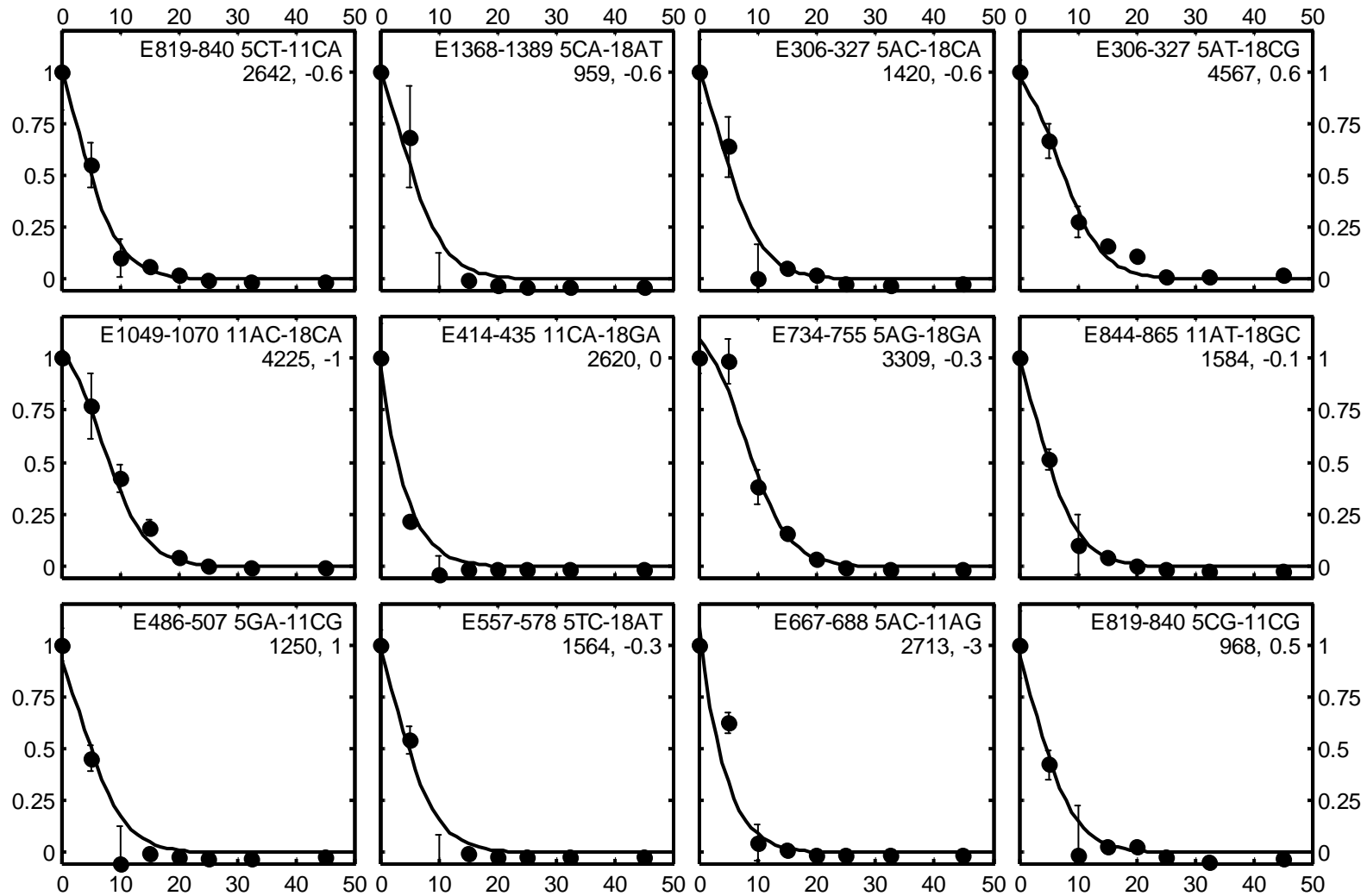
Probes 1-8:

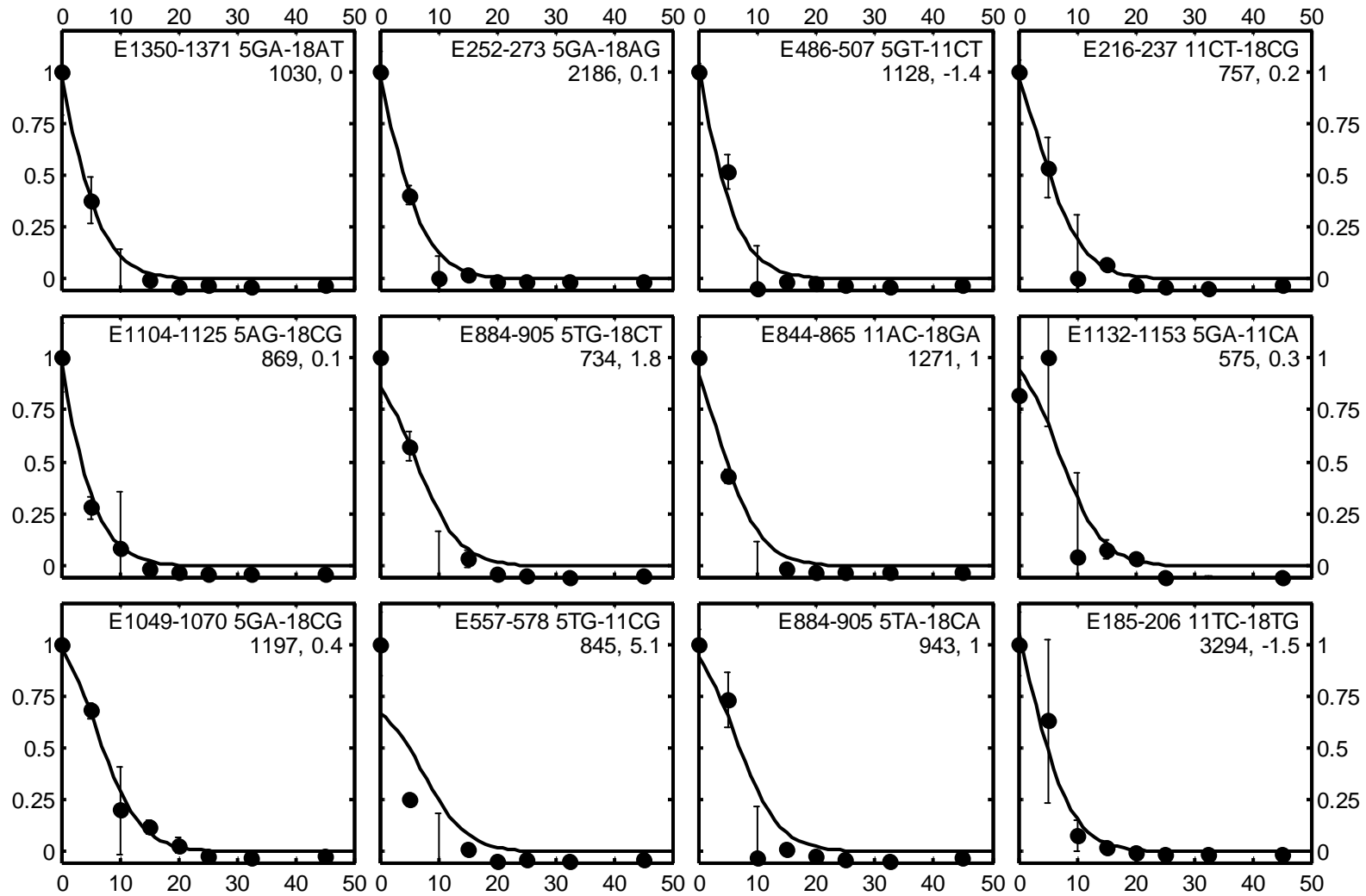


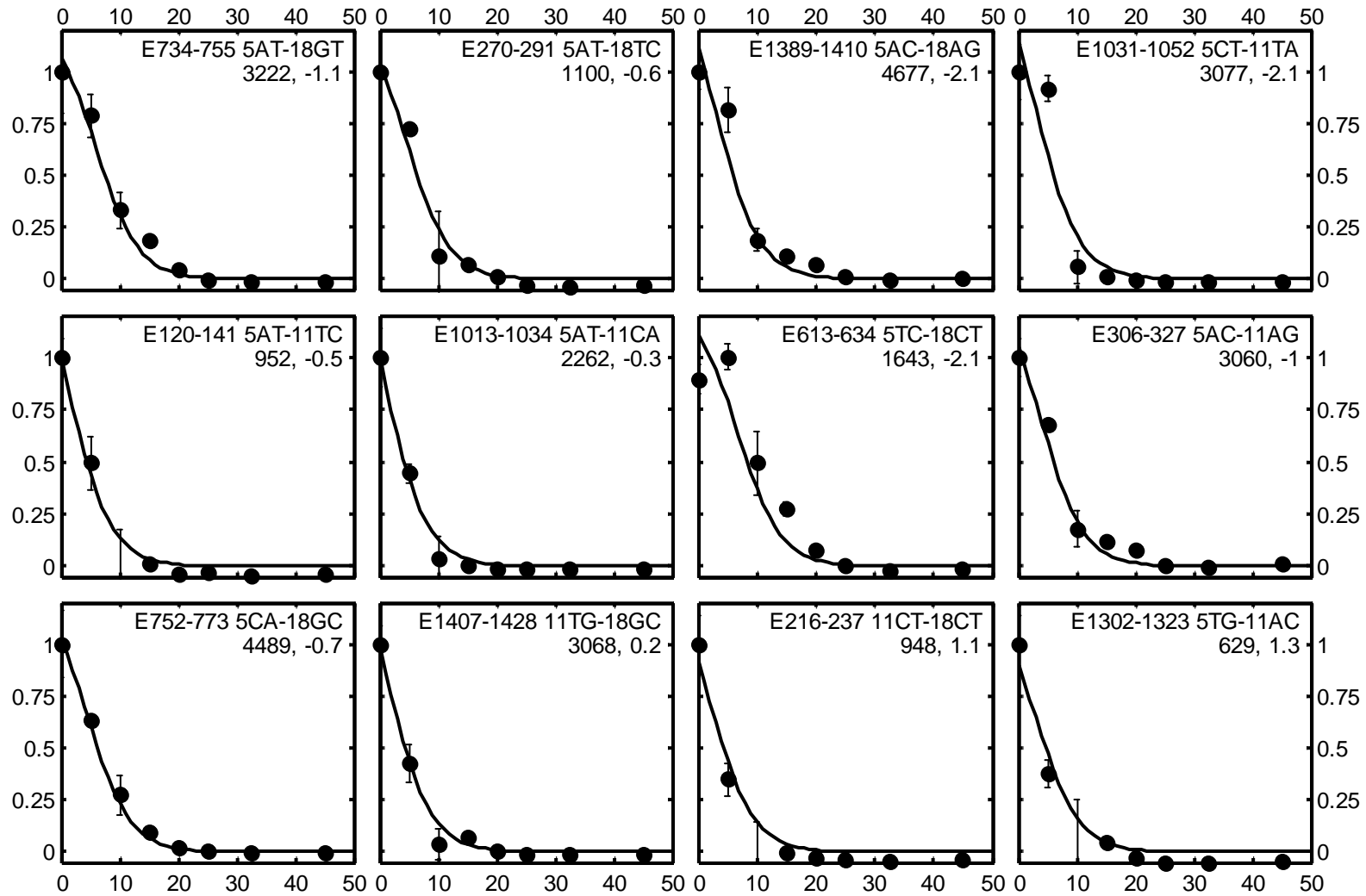
Probes 9-20:

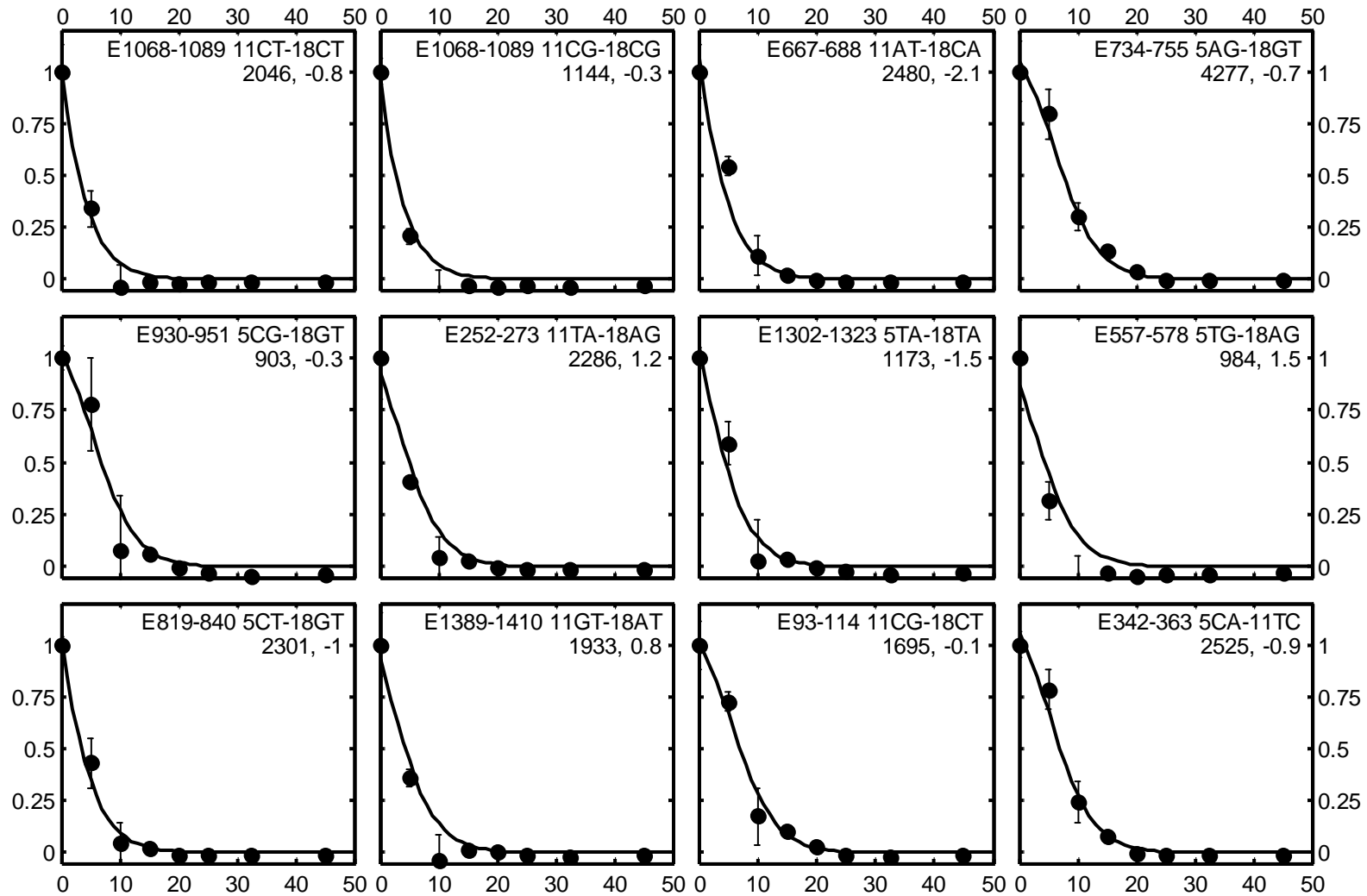
Probes 21-32:

Probes 33-44:

Probes 45-56:

Probes 57-68:

Probes 69-80:

Probes 81-92:

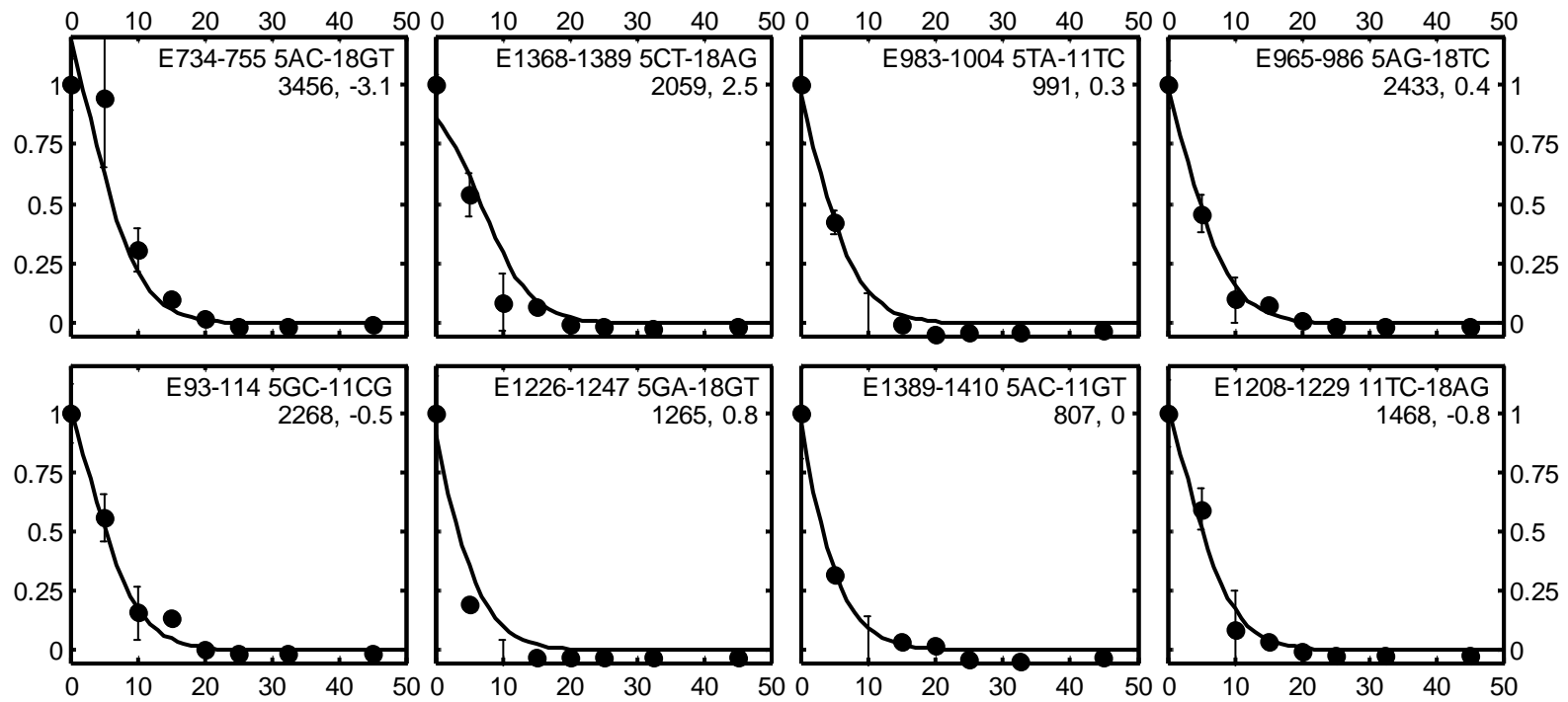
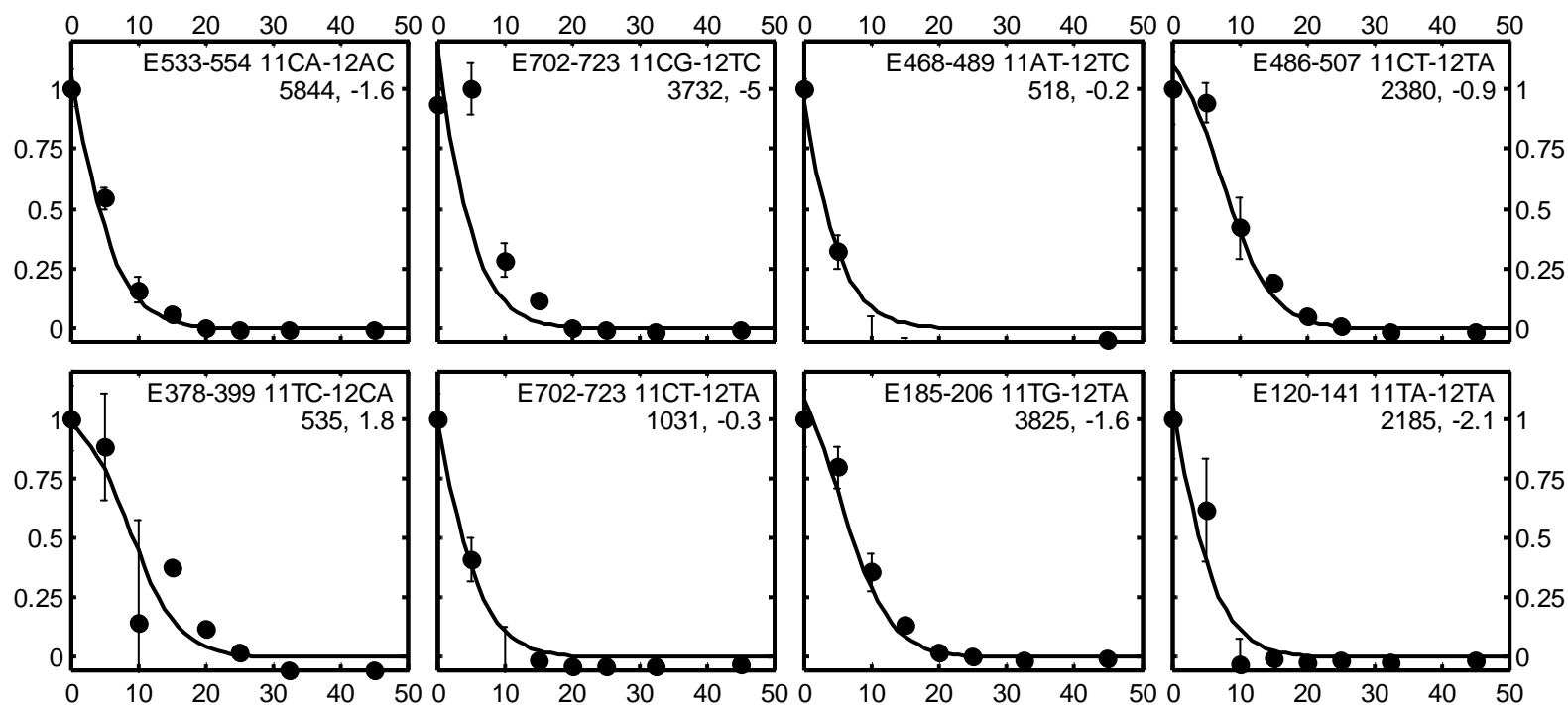
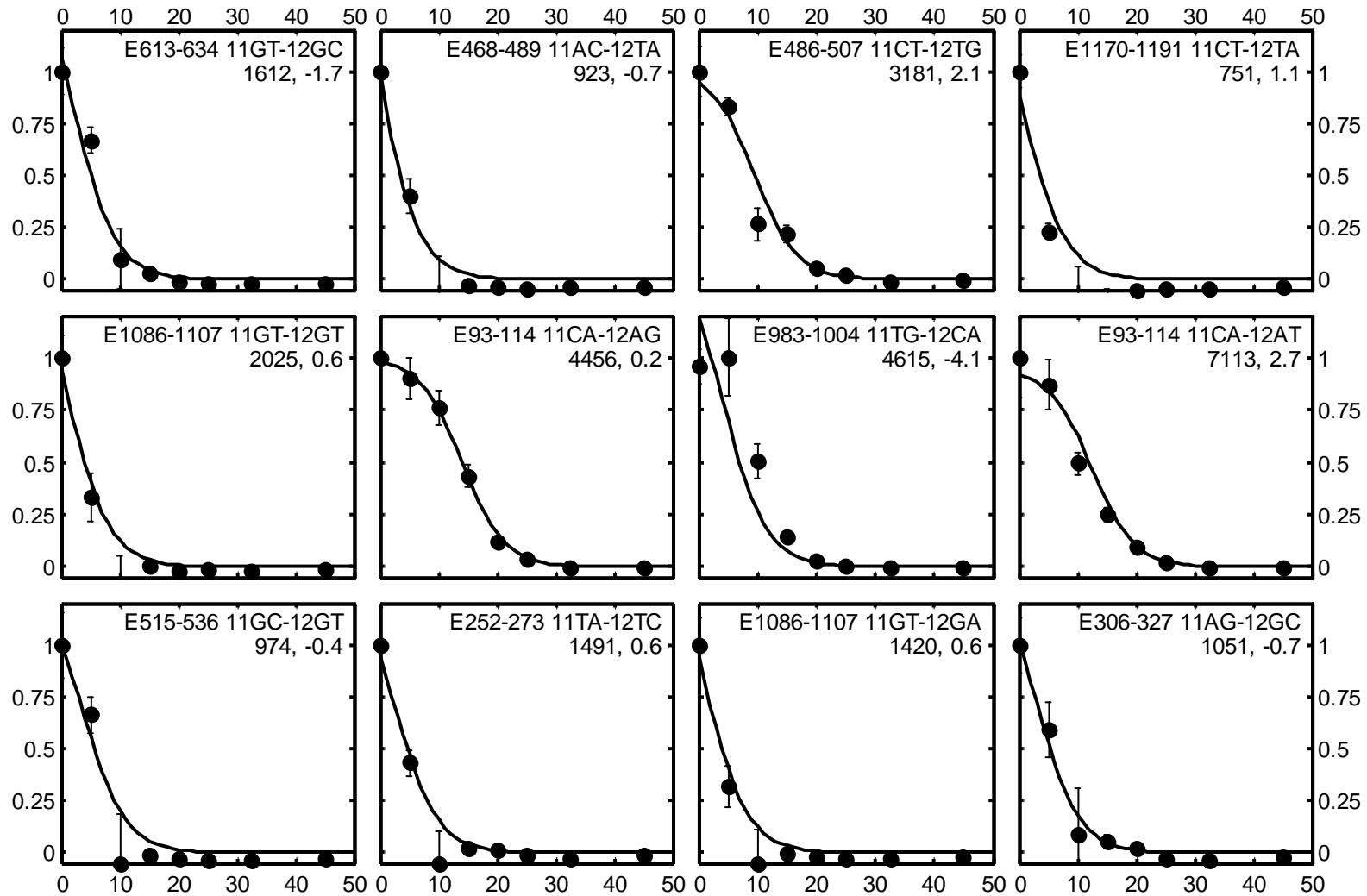
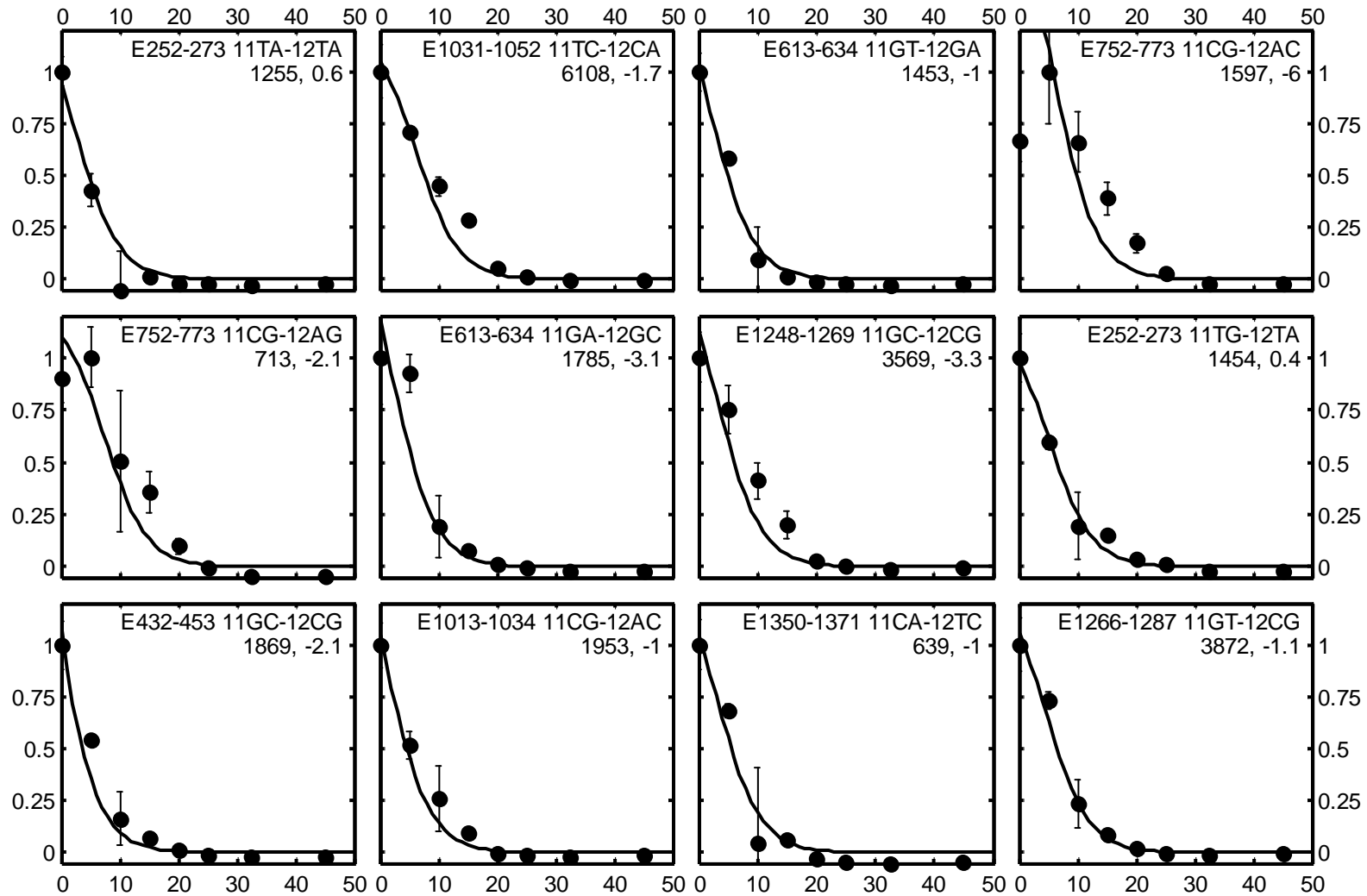
Probes 93-100:

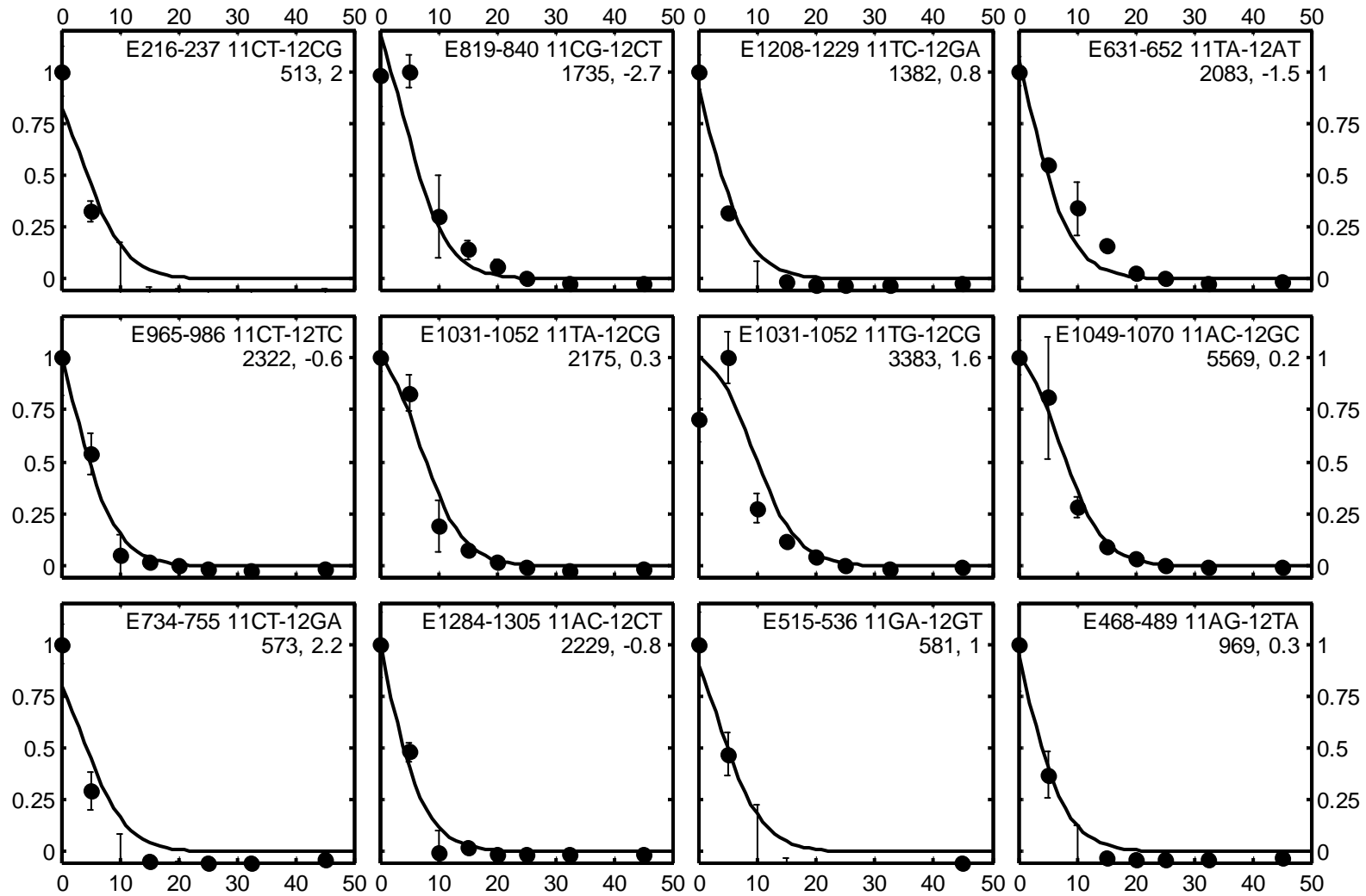
Figure S1F. Experimental (circles) and theoretical (curves) formamide dissociation profiles of 100 randomly selected probes from Tandem set (Table 2). The labels (upper right corner of each graph) indicate probe name (top), I_{\max} (bottom, first number), and $\text{err}[\text{FA}]_{1/2}$ value (bottom, second number). See main manuscript for the descriptions of probe names and I_{\max} and $\text{err}[\text{FA}]_{1/2}$ values. x-axis, formamide concentration; y-axis, normalized signal intensity; error bars, standard deviations.

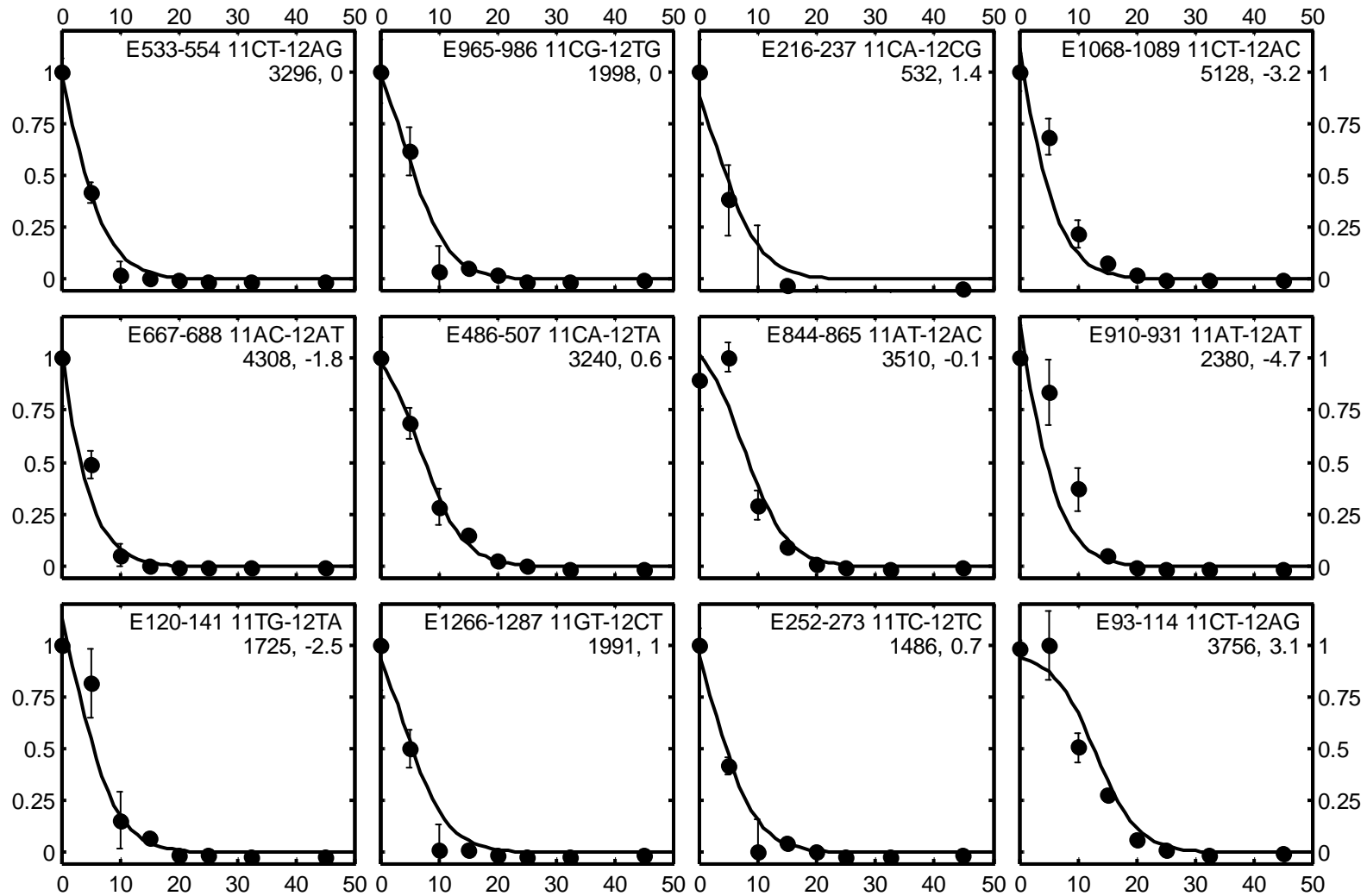
Probes 1-8:



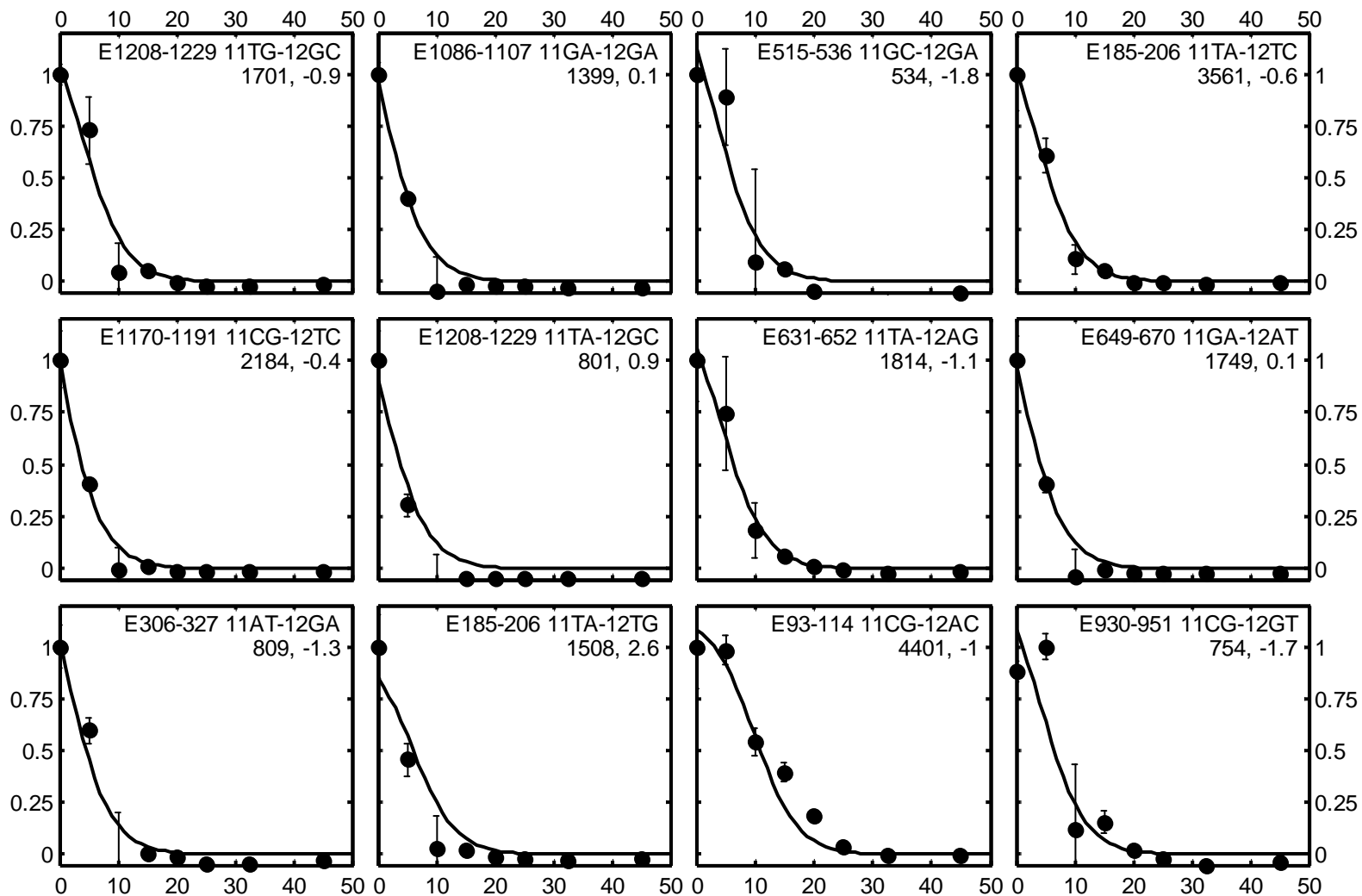
Probes 9-20:

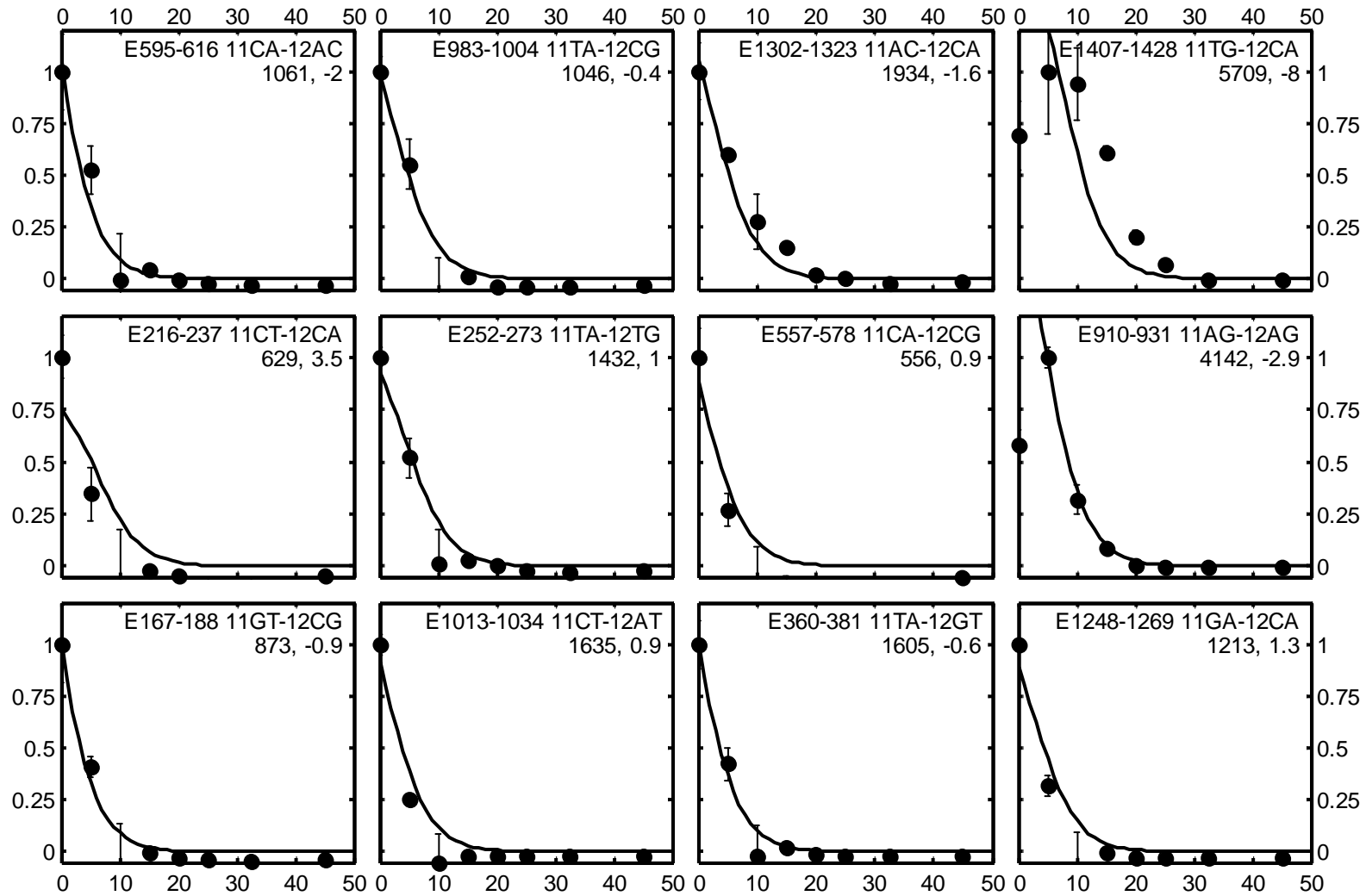
Probes 21-32:

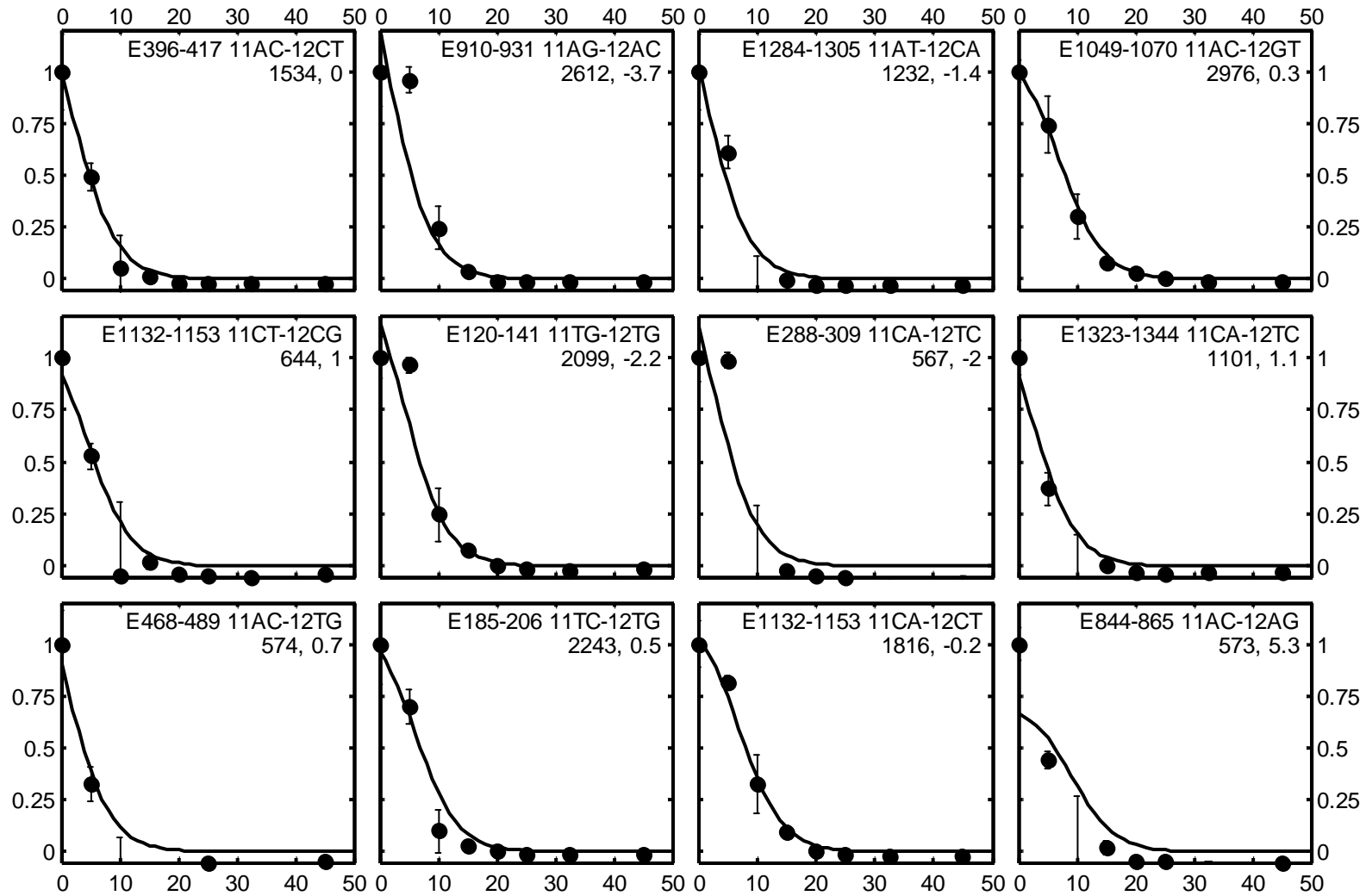
Probes 33-44:

Probes 45-56:

Probes 57-68:



Probes 69-80:

Probes 81-92:

Probes 93-100: