Table 7.4 Fitting parameters for sulfur release shown in Figures 7.22 – 7.25.

Sample	A	n	R^2
BCS3-PA			
L1	1.124	0.517	0.993
L3	0.908	0.609	0.994
L4	0.845	0.559	0.995
L5	0.998	0.524	0.970
KBF-WV			
L1	0.686	0.551	0.988
L3	0.340	0.685	0.998
L4	0.573	0.491	0.991
L5	0.506	0.590	0.990
LKFC-PA			
L1	1.180	0.536	0.966
L3	0.899	0.725	0.999
L4	0.879	0.666	0.998
L5	1.301	0.595	0.997
MKSS-PA			
L1	0.732	0.500	0.992
L3	0.454	0.640	0.953
L4	0.651	0.462	0.994
L5	0.927	0.355	0.976

The exception to expected leaching pattern was HCS-IN, the Houchins Creek Shale (Fig. 7.26). Instead of leaching rates decreasing with increasing time, in this specimen, the leaching rates increased through the end of the 14-week experimental period. The HCS-IN leaching can be approximated with an exponential function with a positive coefficient.

The rapid increase in rate at the end of the experimental sequence was observed in the leaching of some other elements from the Houchins Creek Shale. The exponential form does not make theoretical sense, because it would imply a runaway process that turns on late in the experimental sequence. Clearly, these curves cannot be sustained and must eventually bend over as the sulfur in the shale is completely extracted.