The error may be caused by the linear fitting errors, the unreliability of the original sample including fake data experimental errors and personal errors.

To get the modulus of the sample, we calculate the mean, mode, median, standard deviation, standard deviation of sampling distribution and confidence interval for all the sample separately, which means we combine all the datasets for materials and polymers group separately with eliminating the errors by hand.

For materials group:

Mean 1150098.0800362458

median 1038260.325

Standard deviation 626989.2745827073

Standard error 107527.77349046229

Confidence interval [939343.6439949396, 1360852.5160775518]

For polymers group:

Mean 1213346.406594736

median 1381372.34668931

Standard deviation 711806.6676273905

Standard error 132179.17986174862

Confidence interval [954275.2140657087, 1472417.5991237634]

A graph with a red line

Description automatically generated

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Description automatically generated