```
In[●]:= SetDirectory[
    "C:/Users/serha/OneDrive/Masaüstü/MyRepo/master_thesis_MMT003/210628_finalising/cases"
    ];

In[●]:= SeedRandom@25;
    randomreactionlisttobedeleted =
      Table[Partition[Sort@RandomSample[Range@1008, i], 1], {i, Range[50, 450, 50]}];
    Dimensions@randomreactionlisttobedeleted

Out[●]= {9}
```

105 flux limitation

```
In[●]:= boundaries = Import["boundaries_-5and5_105.mx"];
    Table[Count[boundaries, i], {i, {{-5, 5}, {-500, 500}}}]

Out[●]= {105, 903}
```

```
In[●]:= Counts[boundaries]

Out[●]= <|{-500, 500} → 903, {-5, 5} → 105|>
```

```
In[●]:= boundariesfordeletedreactionseries = Join[{boundaries},
       Table[ReplacePart[boundaries, i → {0, 0}], {i, randomreactionlisttobedeleted}]];
    Dimensions@boundariesfordeletedreactionseries

Out[●]= {10, 1008, 2}
```

```
    (*Export["boundaries_for_deleted_reaction_series_-5and5_105.mx",
      boundariesfordeletedreactionseries];*)
```

210 flux limitation

```
In[●]:= fluxexchanges = 1008;
    SeedRandom@5;
    boundariesdouble = RandomChoice[{0.2, 0.8} → {{-5, 5}, {-500, 500}}, fluxexchanges];
    Table[Count[boundariesdouble, i], {i, {{-5, 5}, {-500, 500}}}]

Out[●]= {212, 796}
```

```
In[●]:= Counts[boundariesdouble]

Out[●]= <|{-5, 5} → 212, {-500, 500} → 796|>
```

```
In[●]:= boundariesdoublefordeletedreactionseries = Join[{boundariesdouble},
       Table[ReplacePart[boundariesdouble, i → {0, 0}], {i, randomreactionlisttobedeleted}]];
    Dimensions@boundariesdoublefordeletedreactionseries

Out[●]= {10, 1008, 2}
```

```
    (*Export["boundaries_for_deleted_reaction_series_-5and5_doubled.mx",
      boundariesdoublefordeletedreactionseries];*)
```

525 flux limitation

```
In[ ]:= fluxexchanges = 1008;
        SeedRandom@5;
        boundaries525 = RandomChoice[{0.4, 0.6} → {{-5, 5}, {-500, 500}}, fluxexchanges];
        Table[Count[boundaries525, i], {i, {{-5, 5}, {-500, 500}}}]
```

Out[ ]= {425, 583}

```
In[ ]:= Counts[boundaries525]
```

Out[ ]= <| {-5, 5} → 425, {-500, 500} → 583 |>

```
In[ ]:= boundaries525fordeletedreactionseries = Join[{boundaries525},
          Table[ReplacePart[boundaries525, i → {0, 0}], {i, randomreactionlisttobedeleted}]];
        Dimensions@boundaries525fordeletedreactionseries
```

Out[ ]= {10, 1008, 2}

```
        (*Export["boundaries_for_deleted_reaction_series_-5and5_quadrupled.mx",
          boundaries525fordeletedreactionseries];*)
```