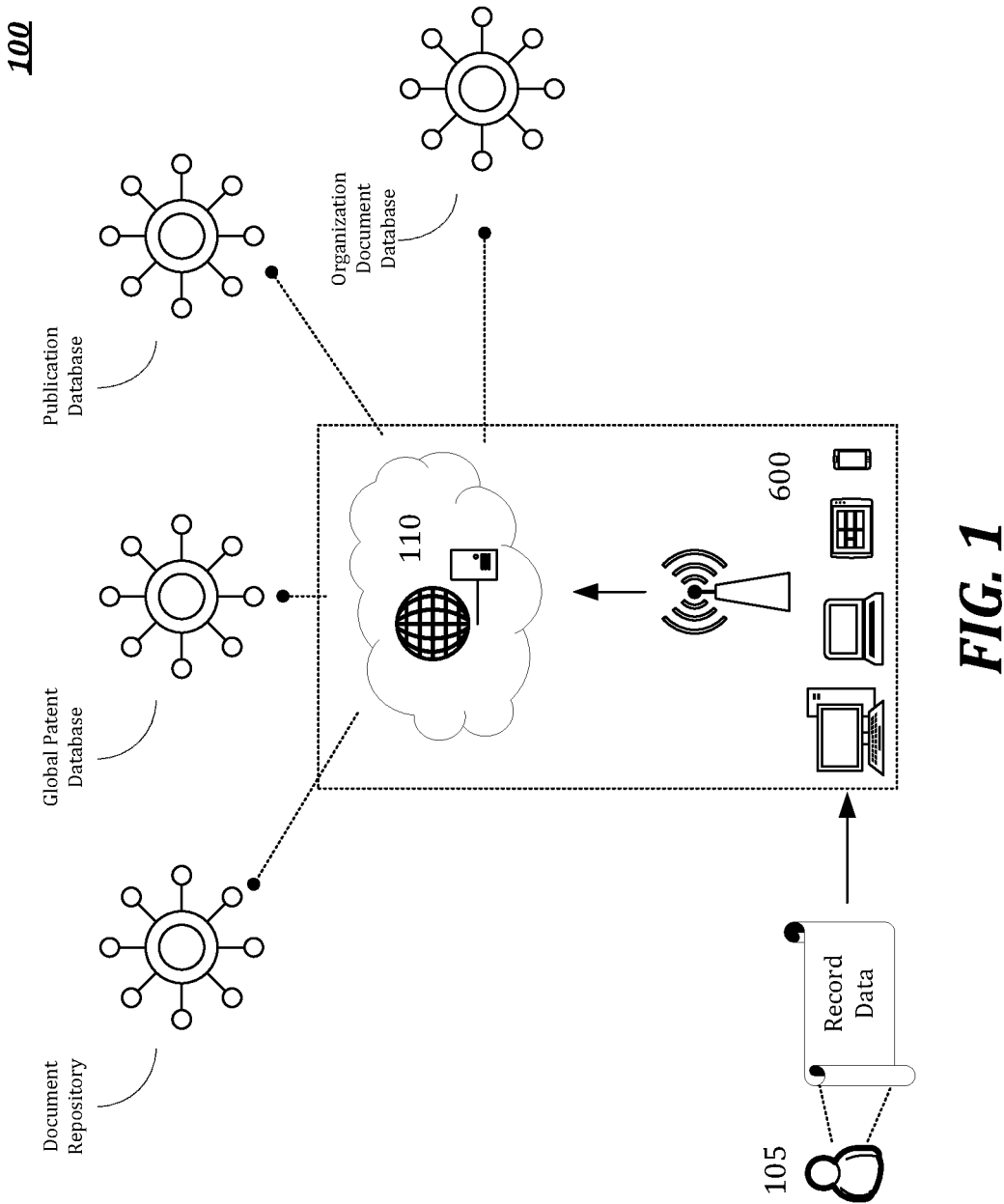




Choose Terms field:

Exchange

Choose Year field:

Publication Year

Optional:

Choose Organization field:

Author Affiliation (Organization Only) (Claimed 2)

Choose Person field:

Authors (Claimed)

Choose Country field:

Countries (1)

Advanced

Cancel

OK

Cleanup Terms List Options

☐ Run General Cleanup?

Optional - Choose a stopwords file:

Words.txt stopwords (within 2-3 kb)

Use Keyword List?

Reset

☐ Use Fuzzy Match?

Set Emergence Criteria

Organization must have at least

50

 % of records and

5

 total records with emergent term.

Person must have at least

50

 % of records and

5

 total records with emergent term.

Country must have at least

50

 % of records and

5

 total records with emergent term.

☐ Group by:

Organization, Person, Country instead?

Calculate Emergence based on:

☐ Percentage

☒ Absolute Record

☐ Create Scores

Count

Terms must have at least:

5

Total Records

5

Years with at least 1 record

Ratio of Records in Recent Years to Baseline Years Records:

7

Remove items occurring in more than

5

 % of Baseline years records

Number of Baseline Years to use is defined

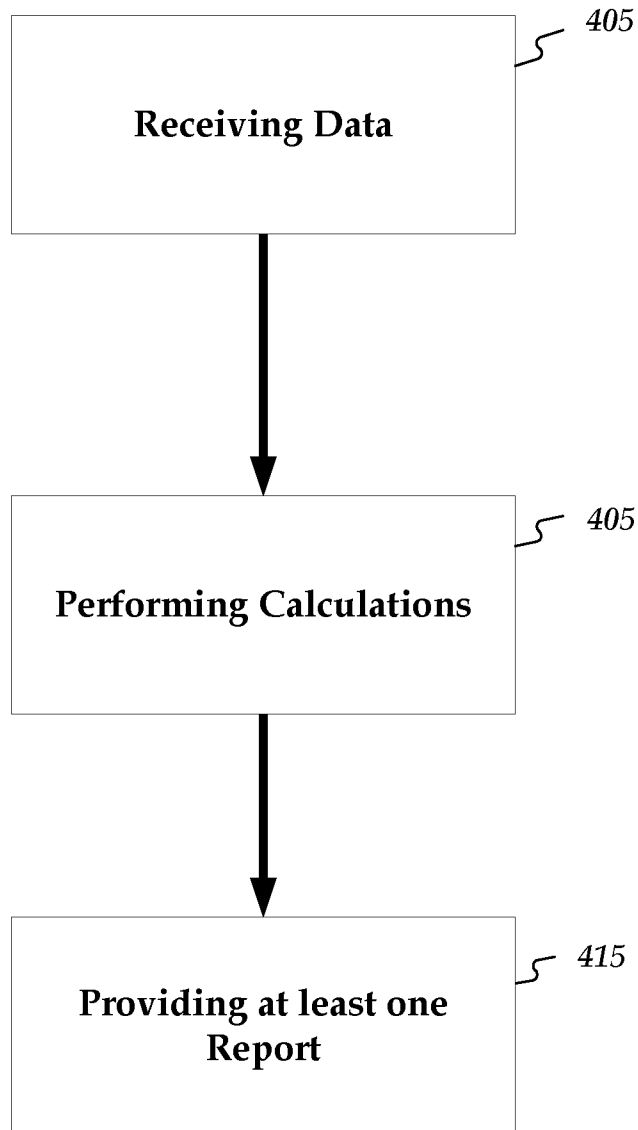
5

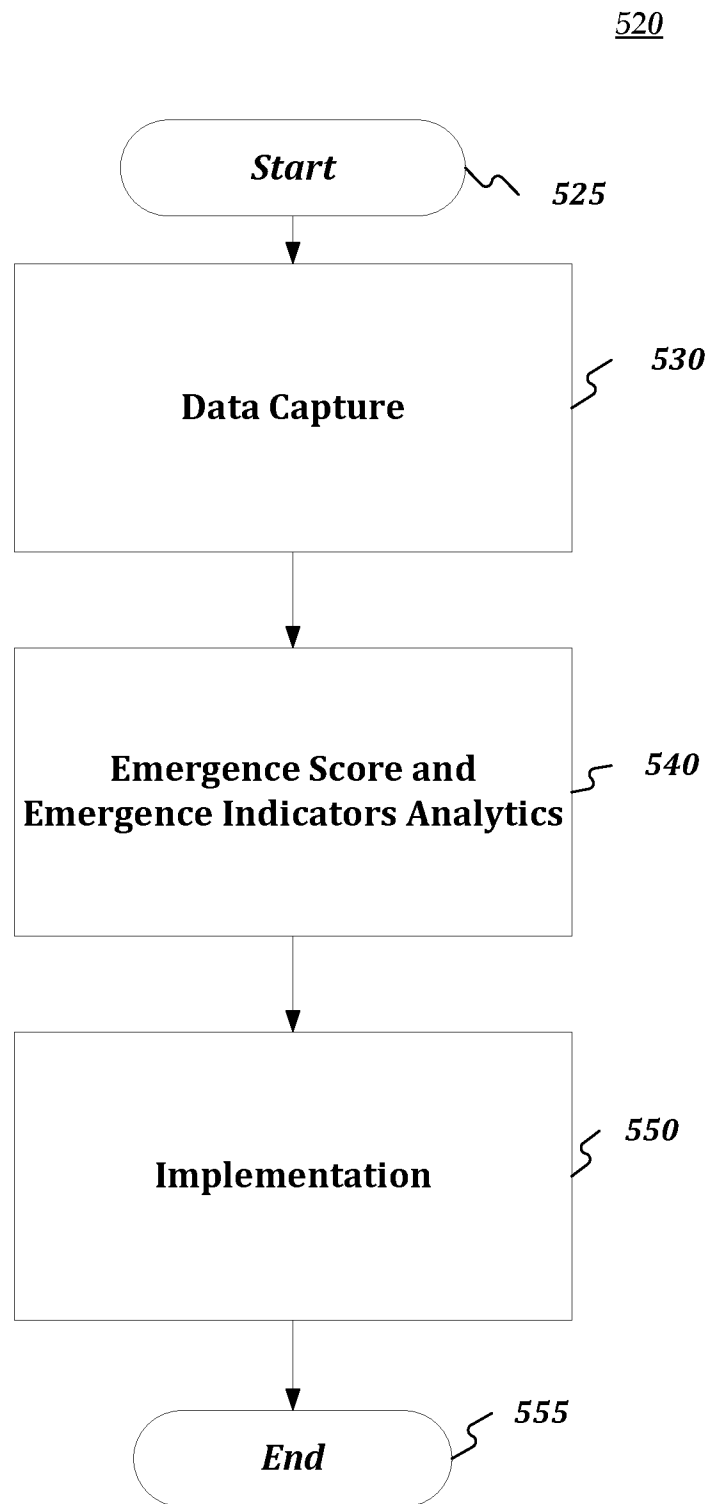
☐ Ignore latest year of data set? (in case of period year)

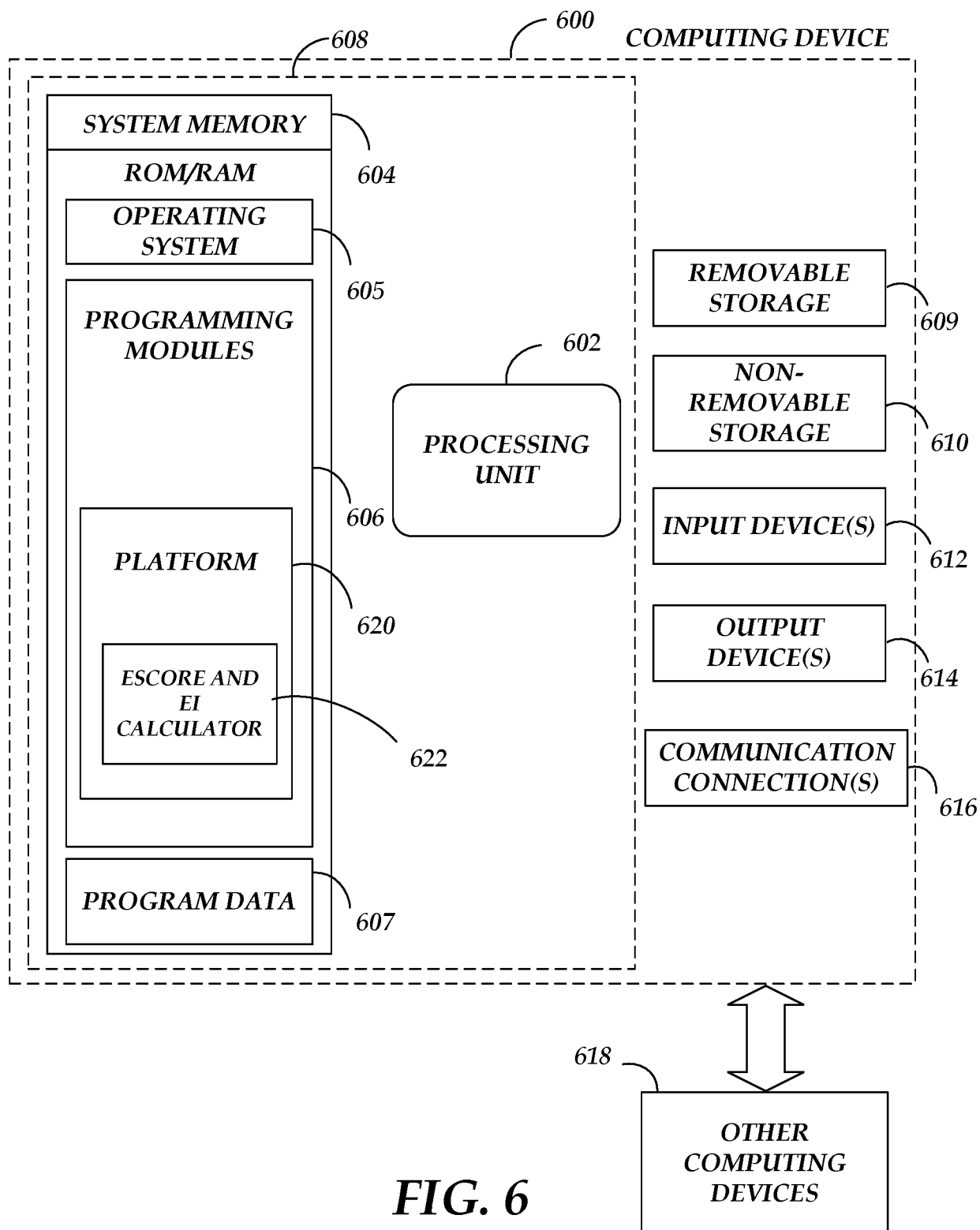
FIG. 2

	# Records	# Instances	Emergence Scores	
			Term	Score
1	179	179	power conversion	13.003
2	174	174	power conversion efficiency	11.978
3	94	94	organic dye	9.278
4	121	121	electrochemical impedance	8.495
5	197	197	photovoltaic performance	8.185
6	128	128	electron microscopy	7.97
7	68	68	TiO ₂	7.098
8	51	51	extinction coefficient	6.714
9	46	46	TiO ₂ film	6.428
10	71	71	density functional theory	6.198
11	54	54	solar cell application	6.174
12	51	51	TiO ₂ nanotube	6.16
13	35	35	dye sensitized solar cell application	5.657
14	149	149	surface area	5.542
15	85	85	glass substrate	5.465
16	148	148	efficient conversion	5.338
17	126	126	impedance spectroscopy	5.033
18	291	291	open circuit voltage	4.905
19	95	95	electrochemical impedance spectroscopy	4.742
20	74	74	tin oxide	4.211
21	34	34	molar extinction coefficient	3.917
22	81	81	X-ray diffraction	3.863
23	30	30	nanotube array	3.839
24	82	82	photovoltaic property	3.727
25	22	22	TiO ₂ nanotube array	3.686
26	22	22	organic sensitizer	3.681
27	31	31	dye N719	3.635
28	106	106	overall conversion efficiency	3.61
29	152	152	fabricated	3.593
30	40	40	X ray diffraction XRD	3.526
31	27	27	electron microscopy SEM	3.493
32	80	80	electron lifetime	3.334
33	41	41	density functional theory DFT	3.327
34	28	28	microscopy SEM	3.247
35	75	75	short circuit current	3.221
36	75	75	circuit current	3.221

FIG. 3

400**FIG. 4**

**FIG. 5**



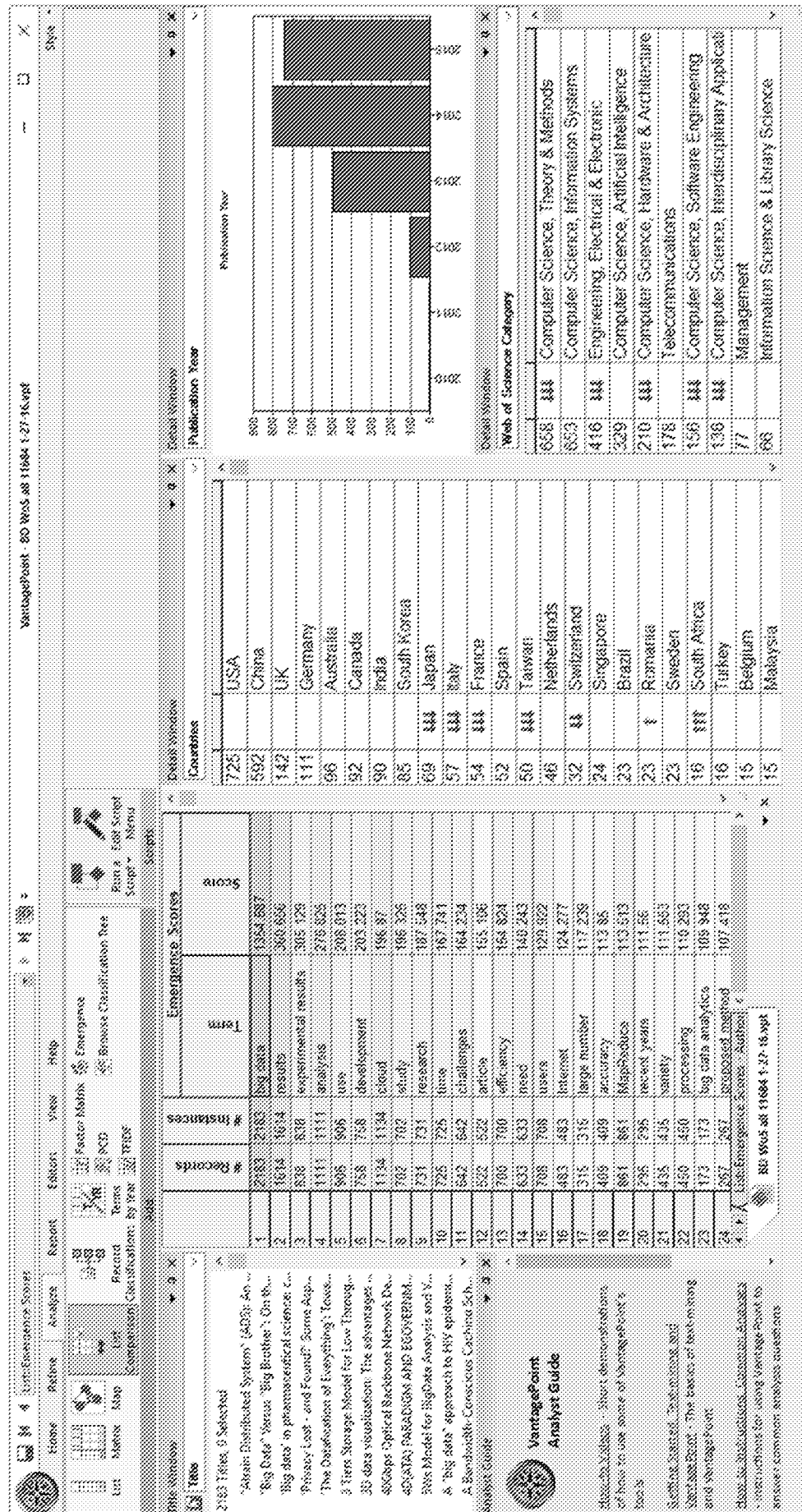


FIG. 7

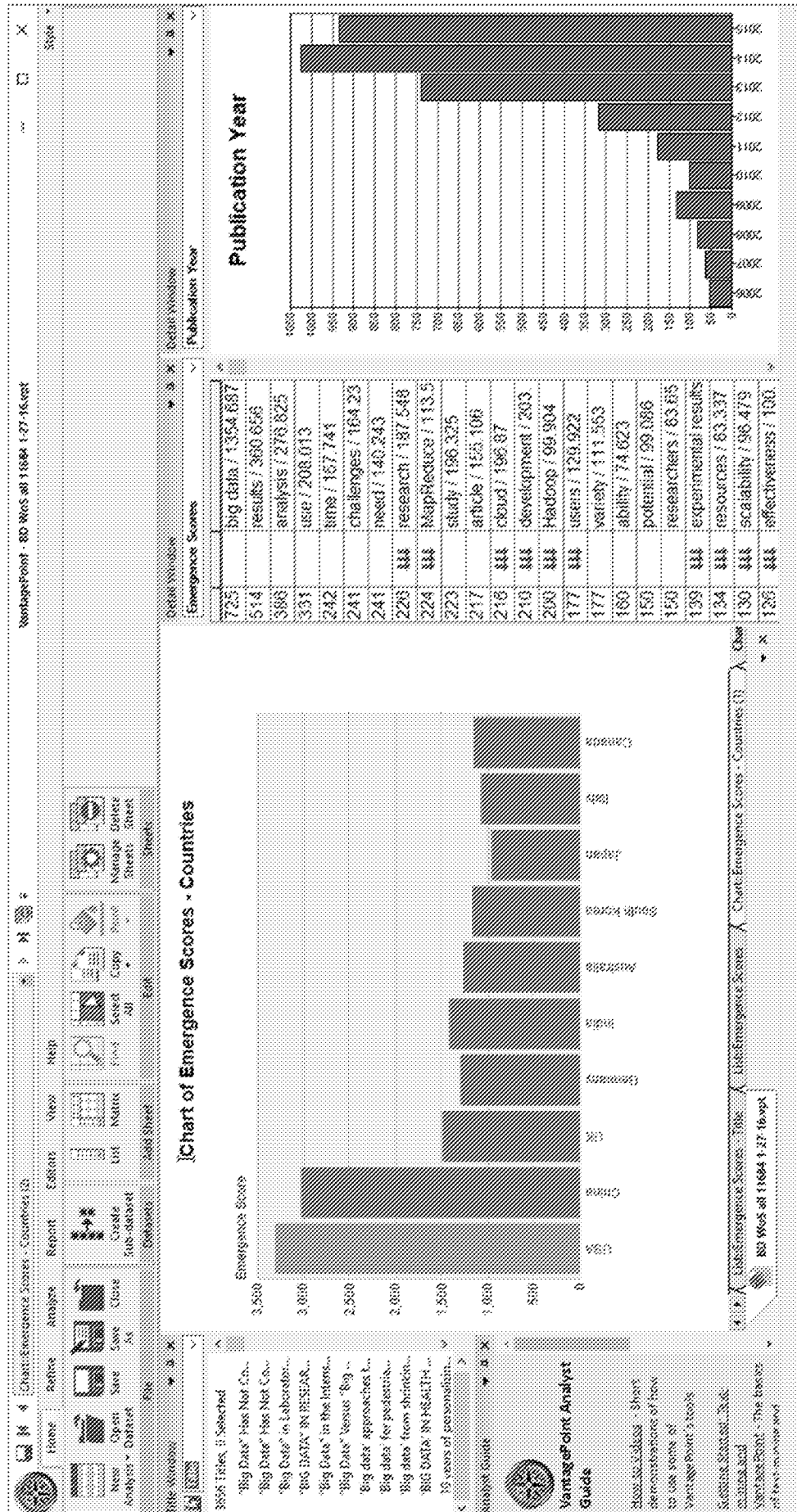


FIG. 8

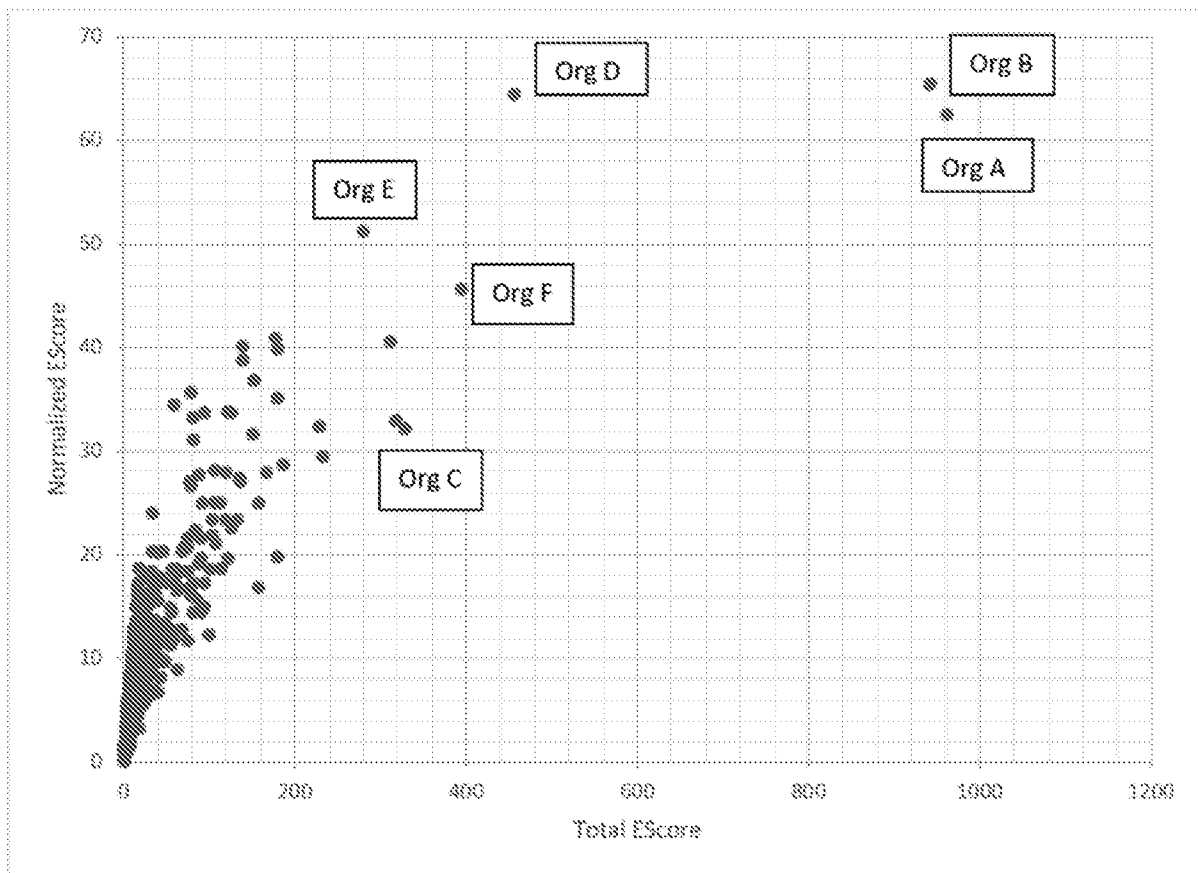


Figure 9A. Normalized vs. Total EScores for Leading Organizations Publishing on DSSCs

FIG. 9A

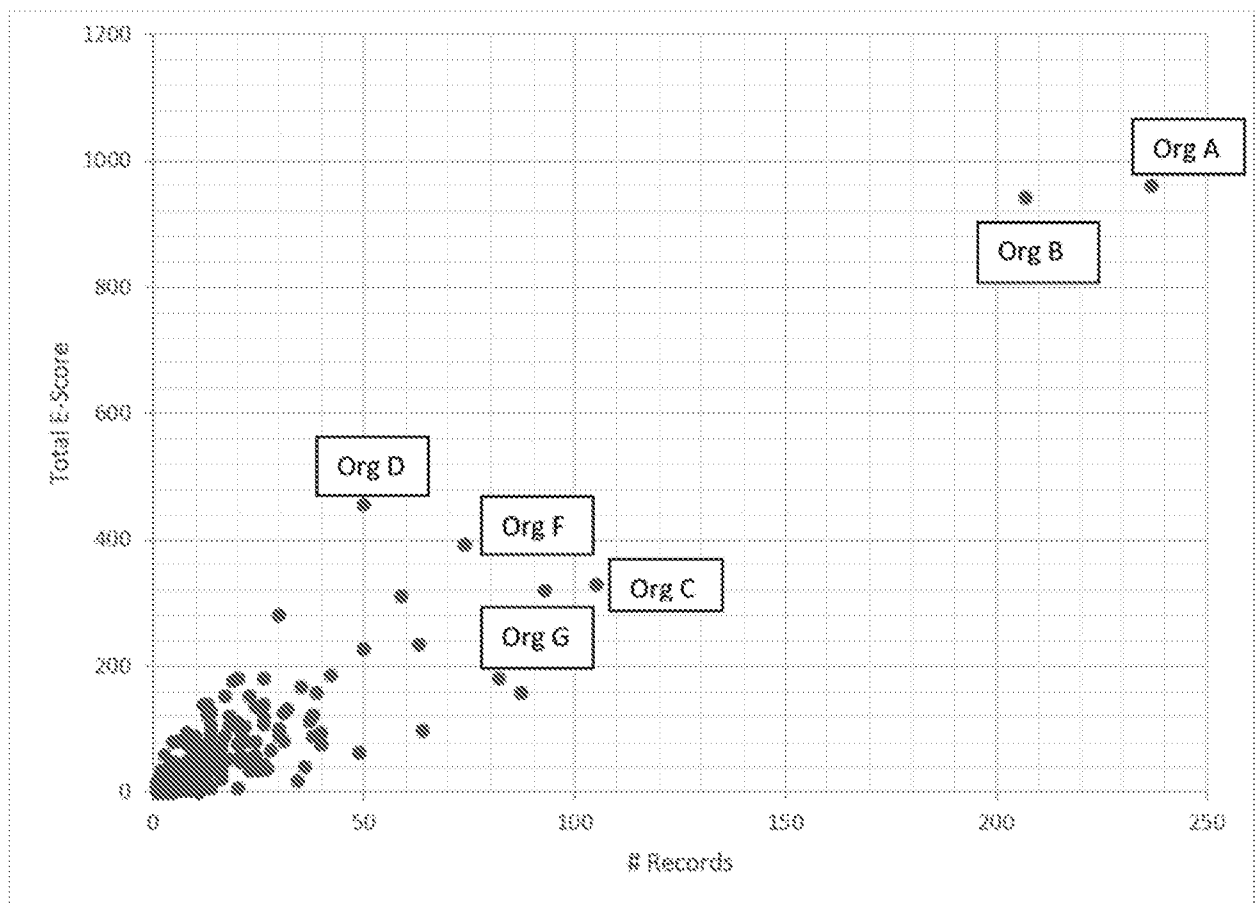


Figure 9B. Total EScores for Leading Organizations Publishing on DSSCs by Number of Publications

FIG. 9B

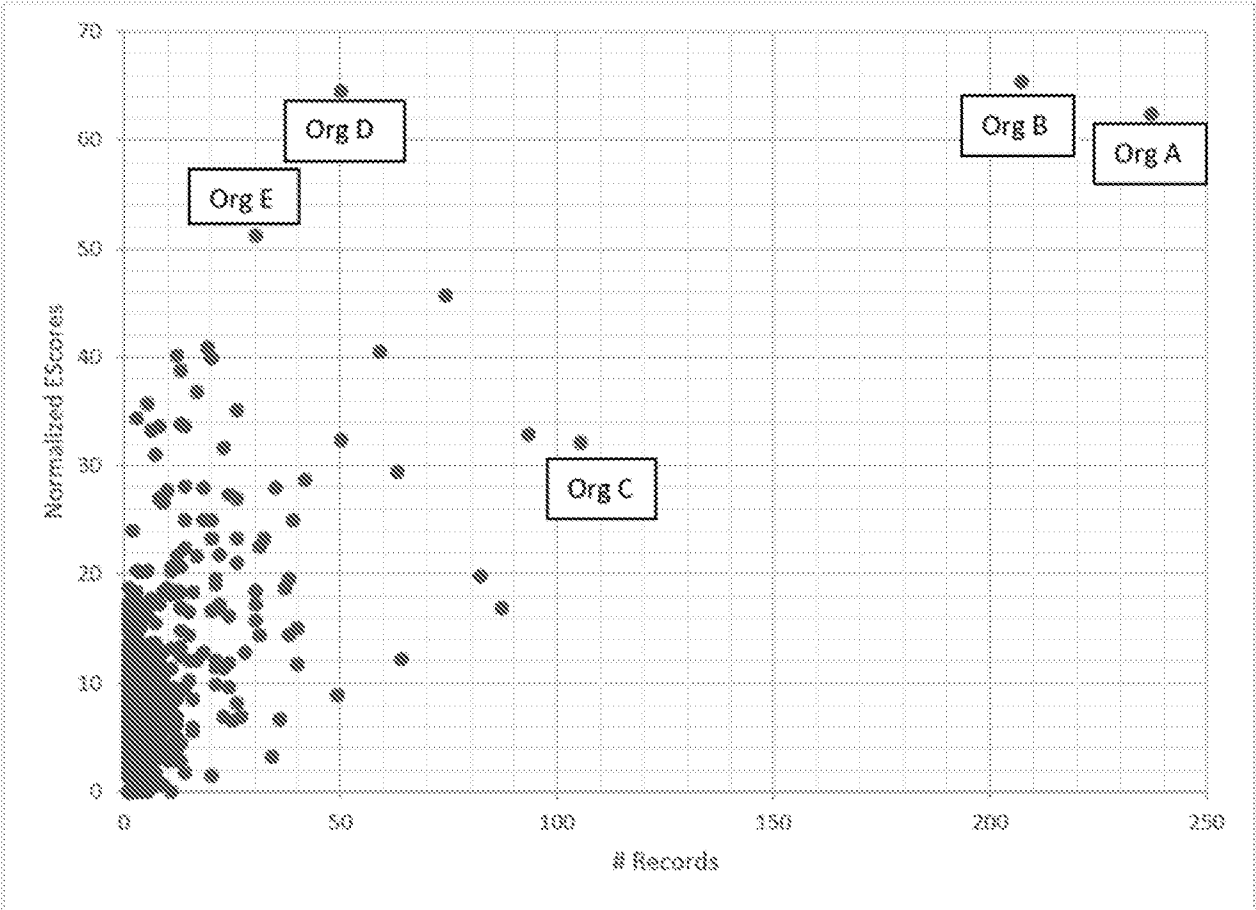


Figure 9C. Normalized EScores for Leading Organizations Publishing on DSSCs by Number of Publications

FIG. 9C

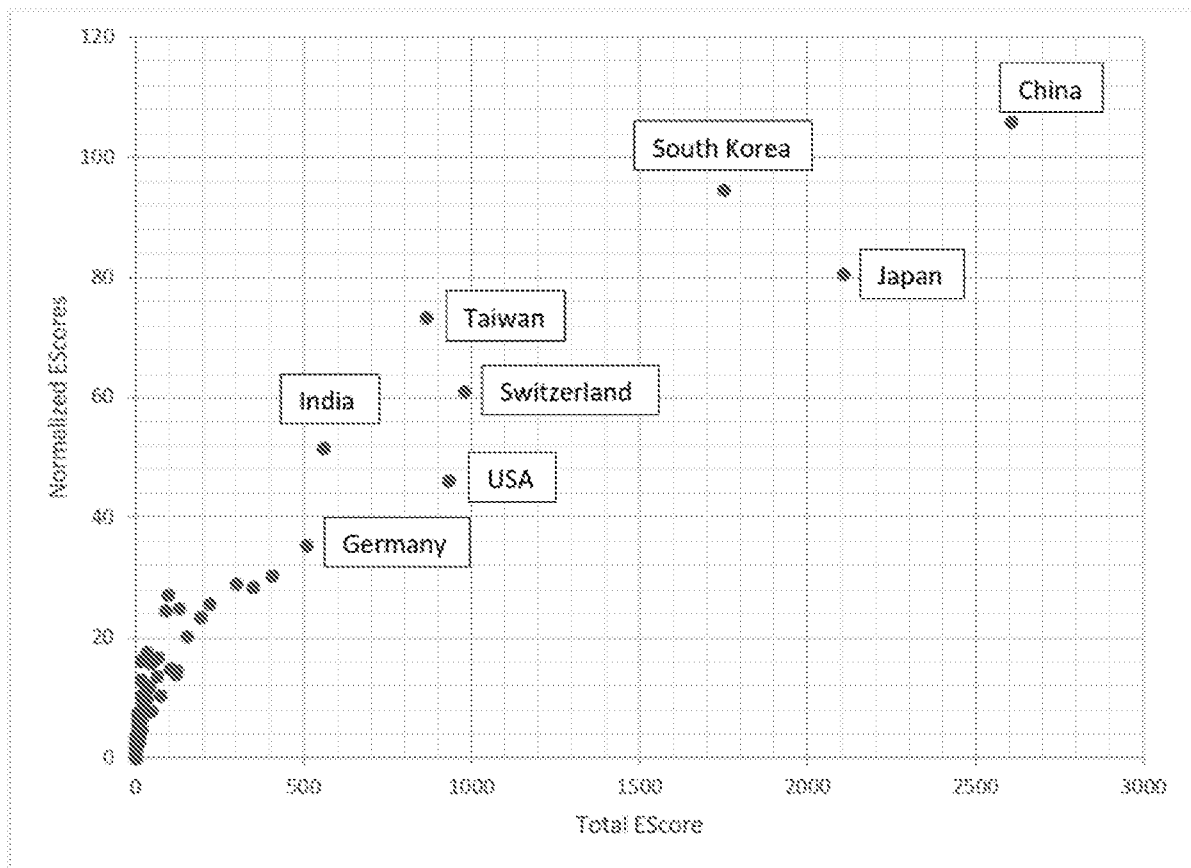


Figure 10A. Normalized vs Total EScores for Leading Countries Publishing on DSSC's

FIG. 10A

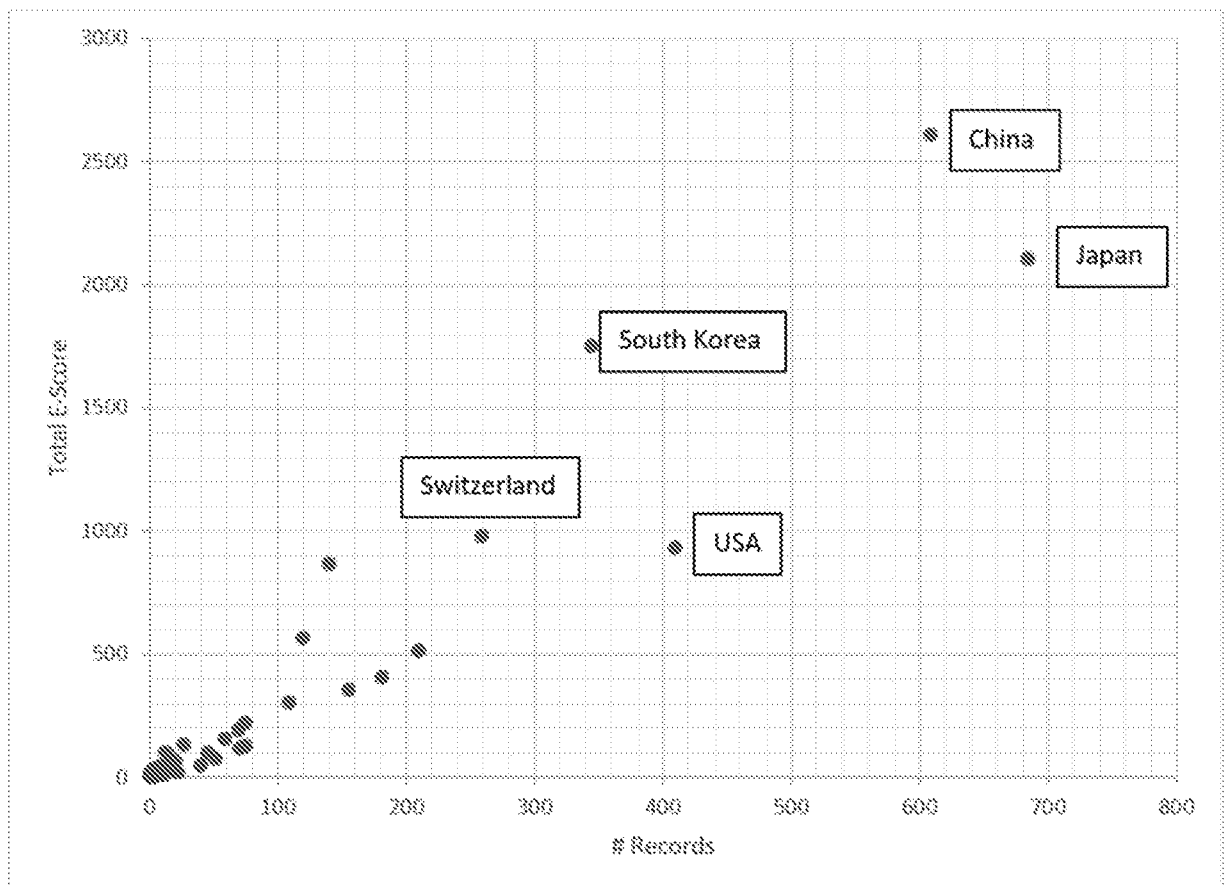


Figure 10B. Total EScores for Leading Countries Publishing on DSSCs by Number of Publications

FIG. 10B