a)

19 statistički najznačajnijih uređeneih ključnih MF-reči (Xie et. al. 2007)

#	name	n prot	n families	avg_len	Z-score	P-value
0	Oxidoreductase	14995	992	376.63	−29.54	0
1	Transferase	26525	1606	445.17	−24.25	0
2	Lyase	7262	347	377.92	−22.64	0
3	Hydrolase	20464	1995	430.68	−21.75	0
4	Isomerase	4487	220	383.98	−14.18	0
5	Glycosidase	1826	244	444.73	−13.98	0
6	Glycosyltransferase	2950	261	437.53	−12.51	0
7	Acyltransferase	2239	179	402.83	−10.85	0
8	Methyltransferase	3524	224	349.60	−10.53	0
9	Kinase	7017	322	448.29	−10.22	0
10	Ligase	8010	230	529.41	−10.06	0
11	Decarboxylase	1293	63	345.26	−9.66	0
12	Monooxygenase	1668	73	444.87	−9.26	0
13	Metalloprotease	1100	109	553.73	−7.89	0
14	Aminopeptidase	452	39	509.17	−7.55	0
15	Dioxygenase	360	66	433.20	−7.32	0
16	Aminoacyl-tRNA synthetase	3402	37	571.83	−7.15	0
17	Protease	4423	380	549.70	−7.1	0
18	Aminotransferase	955	28	420.27	−6.02	0

Uređene ključne MF-reči iz ovog rada (z-skor > 0.2)

#	name	n	avg_len	avg_dis	z	p
0	Oxidoreductase	4126	472.25	0.28	-41.35	0
1	Hydrolase	7564	614.81	0.51	-26.99	0
2	Lyase	1431	481.37	0.30	-23.62	0
3	Monooxygenase	555	503.36	0.20	-20.29	0
4	Transferase	8846	631.95	0.55	-19.72	0
5	Ligase	995	693.30	0.46	-18.05	0
6	Glycosyltransferase	1134	551.26	0.40	-17.04	0
7	Glycosidase	697	570.50	0.37	-16.81	0
8	Isomerase	931	422.72	0.35	-13.60	0
9	Protease	1863	674.42	0.54	-13.20	0
10	Transducer	1703	482.28	0.41	-12.56	0
11	G-protein coupled receptor	1385	465.62	0.39	-12.45	0
12	Acyltransferase	867	531.58	0.42	-11.28	0
13	Decarboxylase	195	488.21	0.25	-10.70	0
14	Aminotransferase	202	451.05	0.24	-10.23	0
15	Aminopeptidase	130	668.72	0.37	-9.10	0
16	Serine protease	460	700.07	0.50	-8.87	0
17	Metalloprotease	507	688.25	0.56	-8.43	0
18	Methyltransferase	874	611.22	0.47	-8.33	0
19	Carboxypeptidase	116	631.16	0.37	-8.25	0
20	Threonine protease	138	246.88	0.18	-7.50	0
21	Dioxygenase	366	622.32	0.48	-7.39	0

b)

Uređene ključne MF-reči iz ovog rada (z-skor > 0.2)

#	name	n	avg_len	avg_dis	z	p
0	Oxidoreductase	4126	472.25	0.28	-41.35	0
1	Hydrolase	7564	614.81	0.51	-26.99	0
2	Lyase	1431	481.37	0.30	-23.62	0
3	Monooxygenase	555	503.36	0.20	-20.29	0
4	Transferase	8846	631.95	0.55	-19.72	0
5	Ligase	995	693.30	0.46	-18.05	0
6	Glycosyltransferase	1134	551.26	0.40	-17.04	0
7	Glycosidase	697	570.50	0.37	-16.81	0
8	Isomerase	931	422.72	0.35	-13.60	0
9	Protease	1863	674.42	0.54	-13.20	0
10	Transducer	1703	482.28	0.41	-12.56	0
11	G-protein coupled receptor	1385	465.62	0.39	-12.45	0
12	Acyltransferase	867	531.58	0.42	-11.28	0
13	Decarboxylase	195	488.21	0.25	-10.70	0
14	Aminotransferase	202	451.05	0.24	-10.23	0
15	Aminopeptidase	130	668.72	0.37	-9.10	0
16	Serine protease	460	700.07	0.50	-8.87	0
17	Metalloprotease	507	688.25	0.56	-8.43	0
18	Methyltransferase	874	611.22	0.47	-8.33	0
19	Carboxypeptidase	116	631.16	0.37	-8.25	0
20	Threonine protease	138	246.88	0.18	-7.50	0
21	Dioxygenase	366	622.32	0.48	-7.39	0
22	Serine esterase	141	423.09	0.28	-7.21	0
23	Receptor	3424	647.92	0.59	-7.09	0
24	Nucleotidyltransferase	600	969.68	0.63	-6.18	0
25	Peroxidase	221	457.61	0.40	-5.50	0
26	Serine protease inhibitor	182	497.66	0.38	-4.92	0
27	Porin	63	318.84	0.21	-4.55	0
28	Dipeptidase	22	522.27	0.23	-4.43	0
29	Integrin	71	1038.25	0.70	-4.29	0
30	Protease inhibitor	284	446.29	0.41	-4.15	0
31	RNA-directed RNA polymerase	62	2506.11	0.87	-4.11	0
32	Neurotoxin	66	209.62	0.17	-3.80	0
33	Hemagglutinin	23	281.22	0.13	-3.37	0
34	Retinal protein	47	384.06	0.28	-3.37	0
35	Myosin	185	1275.20	0.72	-3.29	0
36	Photoreceptor protein	77	540.68	0.47	-3.02	0.01
37	Prenyltransferase	39	376.21	0.31	-2.59	0.01
38	Elongation factor	106	467.68	0.48	-2.59	0.01
39	Endonuclease	443	728.14	0.60	-2.59	0.01
40	Toxin	214	412.51	0.39	-2.56	0
41	Bacteriolytic enzyme	35	434.66	0.31	-2.53	0.01
42	Nuclease	703	668.54	0.60	-2.49	0.01
43	Ion channel impairing toxin	60	74.92	0.15	-2.47	0

Uređeni MF-termini dobijeni iz direktnog i izvedenog mapiranja

#	name	n	avg_len	avg_dis	z	p
0	catalytic activity	28179	569.86	0.48	-52.25	0
1	oxidoreductase activity	4986	450.49	0.30	-39.62	0
2	hydrolase activity	11097	623.94	0.53	-27.76	0
3	lyase activity	1624	480.74	0.31	-24.47	0
4	monooxygenase activity	633	511.13	0.22	-21.40	0
5	transporter activity	5388	621.16	0.53	-19.15	0
6	transferase activity	10428	619.96	0.56	-18.80	0
7	transferase activity, trans...	1343	545.86	0.41	-18.49	0
8	ligase activity	1097	675.42	0.46	-16.68	0
9	hydrolase activity, acting ...	934	548.13	0.39	-16.32	0
10	isomerase activity	1046	425.93	0.35	-14.19	0
11	transferase activity, trans...	1235	540.97	0.43	-13.31	0
12	carboxy-lyase activity	292	494.47	0.26	-13.09	0
13	peptidase activity	2211	644.11	0.53	-13.05	0
14	G-protein coupled receptor ...	1473	465.64	0.40	-12.30	0
15	carboxylic ester hydrolase ...	628	482.21	0.37	-12.01	0
16	serine-type peptidase activity	708	614.43	0.46	-10.79	0
17	aminopeptidase activity	177	633.80	0.35	-10.74	0
18	transaminase activity	230	459.43	0.26	-10.46	0
19	methyltransferase activity	947	607.08	0.48	-8.77	0
20	carboxypeptidase activity	143	596.81	0.34	-8.54	0
21	metallopeptidase activity	632	663.90	0.56	-8.44	0
22	ATP binding	7585	801.90	0.69	-8.22	0
23	dioxygenase activity	419	604.98	0.48	-7.83	0
24	peroxidase activity	282	414.57	0.34	-7.11	0
25	antioxidant activity	499	344.42	0.36	-6.89	0
26	threonine-type endopeptidas...	139	247.87	0.19	-6.79	0
27	nucleotidyltransferase acti...	892	805.20	0.59	-6.07	0
28	porin activity	76	369.24	0.22	-5.22	0
29	serine-type endopeptidase i...	218	485.65	0.40	-4.99	0
30	phospholipase A2 activity	93	377.39	0.30	-4.93	0
31	phospholipase D activity	37	778.27	0.43	-4.87	0
32	prenyltransferase activity	128	369.37	0.32	-4.70	0
33	toxin activity	285	349.98	0.32	-4.59	0
34	dipeptidase activity	41	557.73	0.34	-4.23	0
35	metalloendopeptidase activity	369	711.73	0.63	-4.22	0
36	phospholipase A2 activity (...	70	365.39	0.30	-3.90	0
37	endonuclease activity	773	658.33	0.59	-3.85	0
38	antigen binding	277	345.87	0.38	-3.68	0
39	translation elongation fact...	116	464.12	0.46	-3.35	0
40	nuclease activity	1124	659.17	0.61	-3.20	0
41	G-protein coupled photorece...	44	390.23	0.30	-2.99	0
42	chloride channel activity	195	622.49	0.62	-2.67	0.01
43	RNA-directed 5'-3' RNA poly...	75	2341.31	0.87	-2.57	0.02
44	tRNA binding	247	566.35	0.57	-2.39	0.01