Table S1. Inhibition was statistically compared to the efficacy of other heterocyclic organic Inhibitors that had previously been investigated

Corrosion Inhibitor	Metal	Corrosive solution	% efficiency	Ref.
(E)-N0 -(2,4-dimethoxybenzylidene)-2-(6-methoxynaphthalen-2-yl)propanehydrazide	MS	1 M HCl	95.7-95	1
N0-cyclohexylidene-2-(6-methoxynaphthalen-2-yl) propanehydrazide	MS	1 M HCl	86.0	1
Furoin thiosemicarbazone	MS	1 M HCl	89.7	2
4-pyridinecarboxaldehyde thiosemicarbazone	MS	1 M HCl	85.5	3
5-hexylsulfanyl-1,2,4-triazole	MS	1 M HCl	97.0	4
3-(3-formyl-4-hydroxy- l-phenylazo) - l, 2, 4-triazole	Cu	1 M HNO3	95.8	5
3-(3-formyl-4-hydroxy- l-phenylazo) - l, 2, 4-triazole	MS	1M HCl	92.8	6
2- , 2-amino-7-hydroxy-4-(4-methoxyphenyl)-1,4 dihydroquinoline-3 carbonitrile	MS	1 M HCl	96.6	6
2- , 2-amino-7-hydroxy-4-(4-methoxyphenyl)-1,4 dihydroquinoline-3 carbonitrile	MS	1 M HCl	98.0	6
2-amino-7-hydroxy-4-phenyl-1,4-dihydroquinoline-3-carbonitrile	MS	HCl	93.3	6
2-amino-7-hydroxy-4-(p-tolyl)-1,4 dihydroquinoline-3-carbonitrile	MS	HCl	92.8	6
5-(2- Hydroxyphenyl)-2,7-dithioxo-2,3,5,6,7,8-hexahydropyrimido [4,5-d]-pyrimidin-4(1H) one	N80 steel	1 M HCl	73.1	7
5-(2,5-dimethylthiophen-3yl)-4-(4-(6-(2,5-dimethylthiophen-3-yl)-2- hydroxypyrimidin-4-yl)phenyl)pyrimidin-2-ol	MS	H2SO4	98.3	8
5-(2,5-dimethylthiophen-3yl)-4-(4-(6-(2,5-dimethylthiophen-3-yl)-2-mercaptopyrimidin-4-yl)phenyl) pyrimidin-2-thiol	MS	H2SO4	99.3	8
5-(2,5-dimethylthiophen-3yl)-4-(4-(6-(2,5-dimethylthiophen-3-yl)-2-mercaptopyrimidin-4-yl)phenyl) pyrimidin-2-thiol	MS	H2SO4	99.3	8
2-((6-methyl-2-ketoquinoUne-3-yl)methylene) hydrazinecarbothioamide	MS	1 M HCl	95.8	9
5,50-(1,4-phenylene)bis(N-phenyl-1,3,4-thiadiazol-2-amine)	MS	1 M HCl	94.0	10
(Z)-2-tert-butylimino-3-isopropyl-5-phenyl-1,3,5-thiadiazinane-4-one (Buprofezein)	CS	1 M HCl	91.3	Our results

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