

Table 12.4 Midpoint potentials* of examples of different iron-sulphur cluster types

Cluster	Protein	E_m (mV)
[Fe]	<i>Clostridium pasteurianum</i> : rubredoxin	-58
[Fe]	<i>Clostridium thermoaceticum</i> :	
	Rubredoxin 1	-27
	Rubredoxin 2	-20
[Fe]	<i>Desulphovibrio gigas</i> : desulphoredoxin	-35
[2Fe-2S]	Spinach ferredoxin	-420
[2Fe-2S]	<i>Spirulina maxima</i> : ferredoxin II	-310
[2Fe-2S]	<i>Nostoc</i> strain MAC: ferredoxin II	-455
[2Fe-2S]	Adrenal ferredoxin	-270
[3Fe-4S]	<i>Azotobacter vinelandii</i> : ferredoxin I	-424
[3Fe-4S]	<i>Desulphovibrio gigas</i> : ferredoxin II	-130
[4Fe-4S] ^{1+/2+}	<i>Clostridium pasteurianum</i> : 8Fe ferredoxin	-403
[4Fe-4S] ^{1+/2+}	<i>Bacillus stearothermophilus</i>	-280
[4Fe-4S] ^{1+/2+}	<i>Desulphovibrio gigas</i> : ferredoxin I	-455
[4Fe-4S] ^{2+/3+} (HIPIP)	<i>Chromatium vinosum</i>	356
[4Fe-4S] ^{2+/3+} (HIPIP)	<i>Paracoccus</i> sp	282
Clusters in complex electron-transfer systems		
[2Fe-2S]	Xanthine oxidase (bovine milk)	-300
[2Fe-2S]	Rieske centre	
	Bovine heart	260
	Spinach chloroplasts	290
[4Fe-4S]	Photosystem I (spinach chloroplasts)	
	Centre A	-550
	Centre B	-590
	Centre X	-705
	Succinate dehydrogenase (bovine heart mitochondrial complex II)	
[2Fe-2S]	Centre 1	0
	Centre 2	-260
[4Fe-4S] or [3Fe-4S]	Centre 3	70

*Potentials are versus the standard hydrogen electrode.