Desulphurisation agent		RIIC [%]	Chemical equation							
Iron(II) oxide	*SBGx*	77.73	FeO	+	H_2S	→	**FeS↓**		+ H_2O	
Iron(III) oxide	*SBGx*	69.94	Fe_2O_3	+	$3H_2S$	→	**$2FeS$↓ + S↓**		+ $3H_2O$	
Iron(II,III) oxide		72.36	Fe_3O_4	+	$4H_2S$	→	**$3FeS$↓ + S↓**		+ $4H_2O$	
Iron(II) chloride		44.06	$FeCl_2$	+	H_2S	→	**FeS↓**		+ 2**HCl**[A]	!
Iron(III) chloride		34.43	$2FeCl_3$	+	$3H_2S$	→	**$2FeS$↓ + S↓**		+ 6**HCl**	!
Iron(III) oxide-hydroxide		62.85	$2FeO(OH)$	+	$3H_2S$	→	**$2FeS$↓ + S↓**		+ $4H_2O$	
Iron(II) hydroxide		62.15	$Fe(OH)_2$	+	H_2S	→	**FeS↓**		+ $2H_2O$	
Iron(III) hydroxide		52.26	$2Fe(OH)_3$	+	$3H_2S$	→	**$2FeS$↓ + S↓**		+ $6H_2O$	
Iron(III) oxide trihydrate		52.26	$Fe_2O_3{\cdot}3H_2O$	+	$3H_2S$	→	**$2FeS$↓ + S↓**		+ $6H_2O$	
Also worth listing: Biological desulphurisation										
O_2 addition dosed correctly			O_2	+	$2H_2S$	→		**$2S$↓**	+ $2H_2O$	
O_2 addition overdosed			$2O_2$	+	H_2S	→			**H_2SO_4**[B]	!
Side note: Grünsalz aka Eisendünger in German										
Iron(II) sulphate		36.76	$FeSO_4$	+	H_2S	→	**FeS↓**		+ **H_2SO_4**	!

[A] **Hydrogen chloride** or **Hydrochloric acid gas**
[B] **Sulphuric acid**

!

Note: The additional sulphur precipitation (S↓) with *ferric* agents depends on the utilisation of the oxidation power by a specific group of chemoautotrophic bacteria for respiration.

Damage caused by hydrogen chloride using iron chloride