0.1 Correlation coefficients using Pearson's correlation coefficient

			total			free						
	residual	fixed	sulfur			sulfur					citric	volatile
	sugar	acidity	dioxide	alcohol	quality	dioxide	density	рН	chlorides	sulphates	acid	acidity
residual sugar	1.0000	0.0890	0.4014	-0.4506	-0.0976	0.2991	0.8390	-0.1941	0.0887	-0.0267	0.0942	0.0643
fixed acidity	0.0890	1.0000	0.0911	-0.1209	-0.1137	-0.0494	0.2653	-0.4259	0.0231	-0.0171	0.2892	-0.0227
total sulfur dioxide	0.4014	0.0911	1.0000	-0.4489	-0.1747	0.6155	0.5299	0.0023	0.1989	0.1346	0.1211	0.0893
alcohol	-0.4506	-0.1209	-0.4489	1.0000	0.4356	-0.2501	-0.7801	0.1214	-0.3602	-0.0174	-0.0757	0.0677
quality	-0.0976	-0.1137	-0.1747	0.4356	1.0000	0.0082	-0.3071	0.0994	-0.2099	0.0537	-0.0092	-0.1947
free sulfur dioxide	0.2991	-0.0494	0.6155	-0.2501	0.0082	1.0000	0.2942	-0.0006	0.1014	0.0592	0.0941	-0.0970
density	0.8390	0.2653	0.5299	-0.7801	-0.3071	0.2942	1.0000	-0.0936	0.2572	0.0745	0.1495	0.0271
рН	-0.1941	-0.4259	0.0023	0.1214	0.0994	-0.0006	-0.0936	1.0000	-0.0904	0.1560	-0.1637	-0.0319
chlorides	0.0887	0.0231	0.1989	-0.3602	-0.2099	0.1014	0.2572	-0.0904	1.0000	0.0168	0.1144	0.0705
sulphates	-0.0267	-0.0171	0.1346	-0.0174	0.0537	0.0592	0.0745	0.1560	0.0168	1.0000	0.0623	-0.0357
citric acid	0.0942	0.2892	0.1211	-0.0757	-0.0092	0.0941	0.1495	-0.1637	0.1144	0.0623	1.0000	-0.1495
volatile acidity	0.0643	-0.0227	0.0893	0.0677	-0.1947	-0.0970	0.0271	-0.0319	0.0705	-0.0357	-0.1495	1.0000

0.2 Correlation coefficients using Spearman's rho

			total			free						
	residual	fixed	sulfur			sulfur					citric	volatile
	sugar	acidity	dioxide	alcohol	quality	dioxide	density	рΗ	chlorides	sulphates	acid	acidity
residual sugar	1.0000	0.0890	0.4014	-0.4506	-0.0976	0.2991	0.8390	-0.1941	0.0887	-0.0267	0.0942	0.0643
fixed acidity	0.0890	1.0000	0.0911	-0.1209	-0.1137	-0.0494	0.2653	-0.4259	0.0231	-0.0171	0.2892	-0.0227
total sulfur dioxide	0.4014	0.0911	1.0000	-0.4489	-0.1747	0.6155	0.5299	0.0023	0.1989	0.1346	0.1211	0.0893
alcohol	-0.4506	-0.1209	-0.4489	1.0000	0.4356	-0.2501	-0.7801	0.1214	-0.3602	-0.0174	-0.0757	0.0677
quality	-0.0976	-0.1137	-0.1747	0.4356	1.0000	0.0082	-0.3071	0.0994	-0.2099	0.0537	-0.0092	-0.1947
free sulfur dioxide	0.2991	-0.0494	0.6155	-0.2501	0.0082	1.0000	0.2942	-0.0006	0.1014	0.0592	0.0941	-0.0970
density	0.8390	0.2653	0.5299	-0.7801	-0.3071	0.2942	1.0000	-0.0936	0.2572	0.0745	0.1495	0.0271
рН	-0.1941	-0.4259	0.0023	0.1214	0.0994	-0.0006	-0.0936	1.0000	-0.0904	0.1560	-0.1637	-0.0319
chlorides	0.0887	0.0231	0.1989	-0.3602	-0.2099	0.1014	0.2572	-0.0904	1.0000	0.0168	0.1144	0.0705
sulphates	-0.0267	-0.0171	0.1346	-0.0174	0.0537	0.0592	0.0745	0.1560	0.0168	1.0000	0.0623	-0.0357
citric acid	0.0942	0.2892	0.1211	-0.0757	-0.0092	0.0941	0.1495	-0.1637	0.1144	0.0623	1.0000	-0.1495
volatile acidity	0.0643	-0.0227	0.0893	0.0677	-0.1947	-0.0970	0.0271	-0.0319	0.0705	-0.0357	-0.1495	1.0000

0.3 Correlation coefficients using Kendall's tau

			total			free						
	residual	fixed	sulfur			sulfur					citric	volatile
	sugar	acidity	dioxide	alcohol	quality	dioxide	density	pH	chlorides	sulphates	acid	acidity
residual sugar	1.0000	0.0890	0.4014	-0.4506	-0.0976	0.2991	0.8390	-0.1941	0.0887	-0.0267	0.0942	0.0643
fixed acidity	0.0890	1.0000	0.0911	-0.1209	-0.1137	-0.0494	0.2653	-0.4259	0.0231	-0.0171	0.2892	-0.0227
total sulfur dioxide	0.4014	0.0911	1.0000	-0.4489	-0.1747	0.6155	0.5299	0.0023	0.1989	0.1346	0.1211	0.0893
alcohol	-0.4506	-0.1209	-0.4489	1.0000	0.4356	-0.2501	-0.7801	0.1214	-0.3602	-0.0174	-0.0757	0.0677
quality	-0.0976	-0.1137	-0.1747	0.4356	1.0000	0.0082	-0.3071	0.0994	-0.2099	0.0537	-0.0092	-0.1947
free sulfur dioxide	0.2991	-0.0494	0.6155	-0.2501	0.0082	1.0000	0.2942	-0.0006	0.1014	0.0592	0.0941	-0.0970
density	0.8390	0.2653	0.5299	-0.7801	-0.3071	0.2942	1.0000	-0.0936	0.2572	0.0745	0.1495	0.0271
pН	-0.1941	-0.4259	0.0023	0.1214	0.0994	-0.0006	-0.0936	1.0000	-0.0904	0.1560	-0.1637	-0.0319
chlorides	0.0887	0.0231	0.1989	-0.3602	-0.2099	0.1014	0.2572	-0.0904	1.0000	0.0168	0.1144	0.0705
sulphates	-0.0267	-0.0171	0.1346	-0.0174	0.0537	0.0592	0.0745	0.1560	0.0168	1.0000	0.0623	-0.0357
citric acid	0.0942	0.2892	0.1211	-0.0757	-0.0092	0.0941	0.1495	-0.1637	0.1144	0.0623	1.0000	-0.1495
volatile acidity	0.0643	-0.0227	0.0893	0.0677	-0.1947	-0.0970	0.0271	-0.0319	0.0705	-0.0357	-0.1495	1.0000