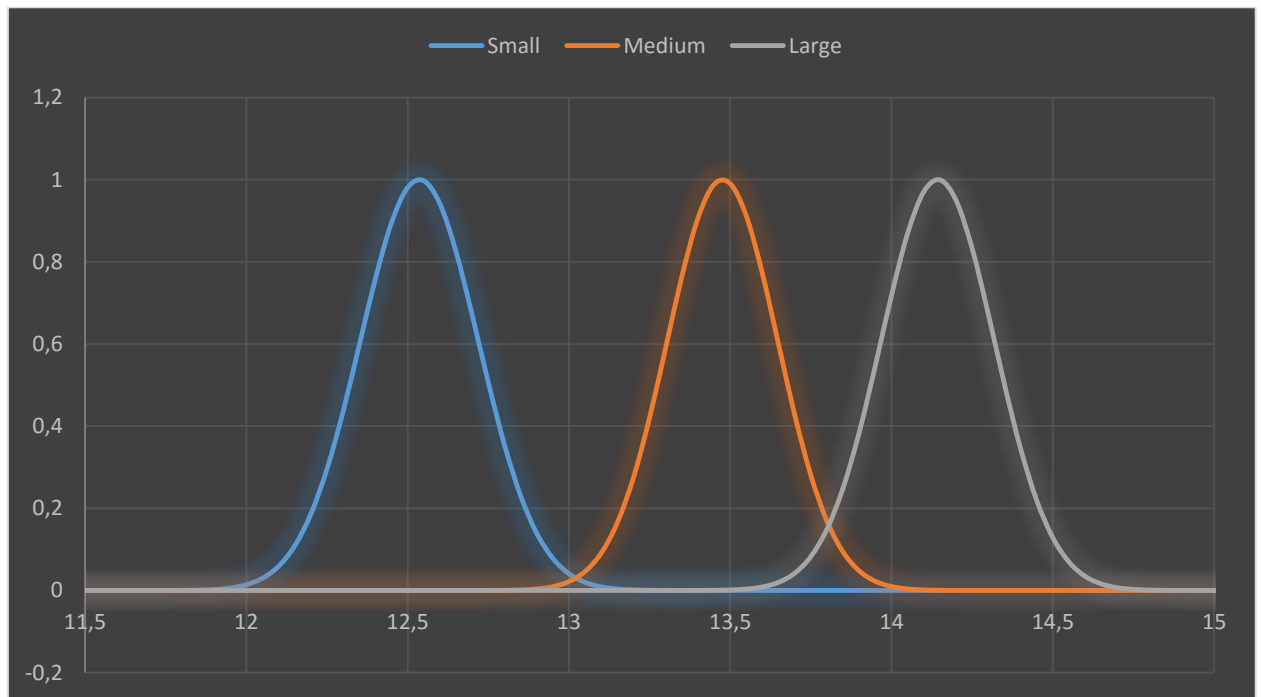


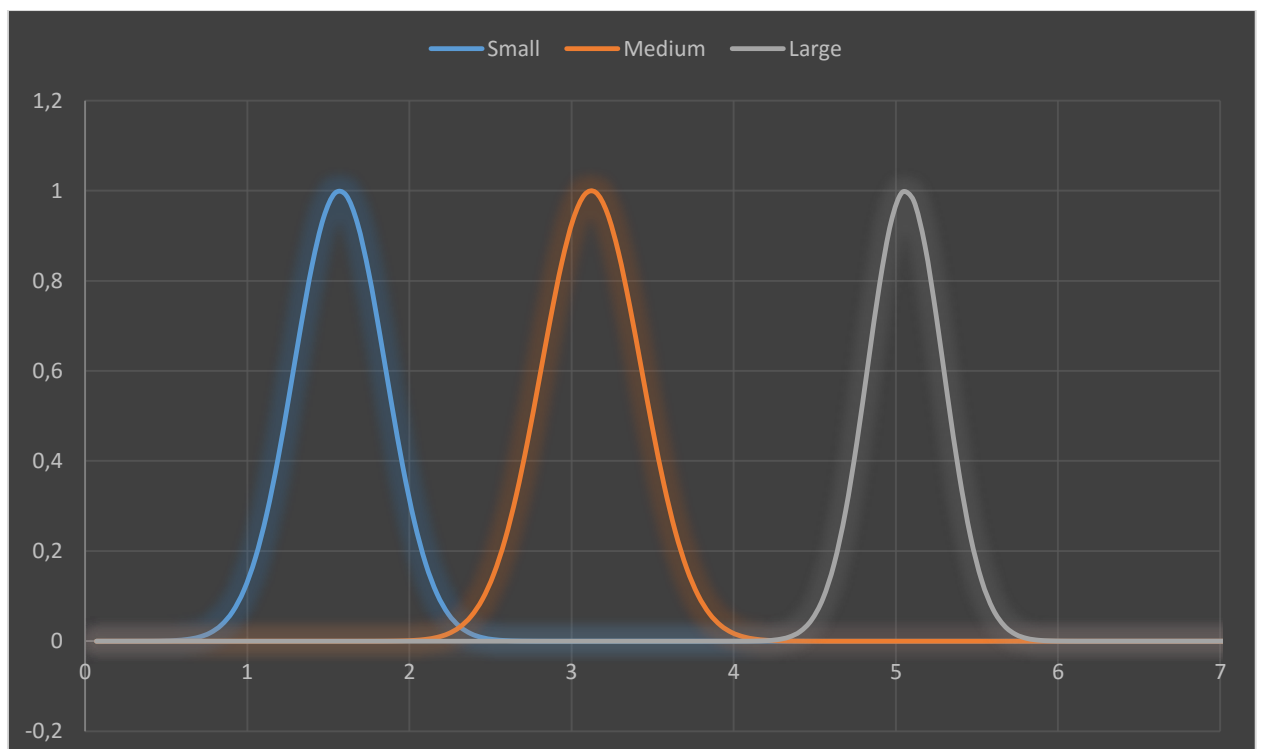
Contemporary Data Processing Technology (CCOD)
Lab 8 (October 17, 2016)
Shurpo Dmitry, AS-36

Membership Functions (Gaussian):

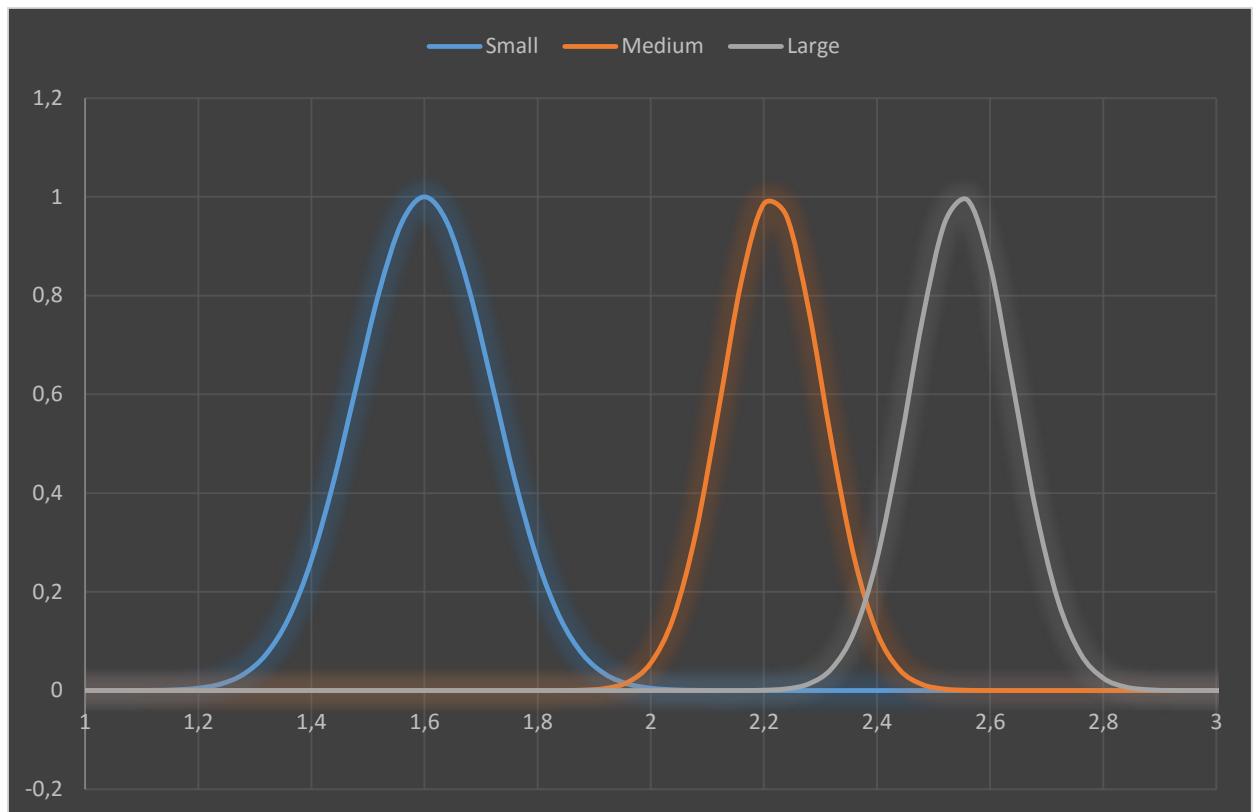
1) Alcohol



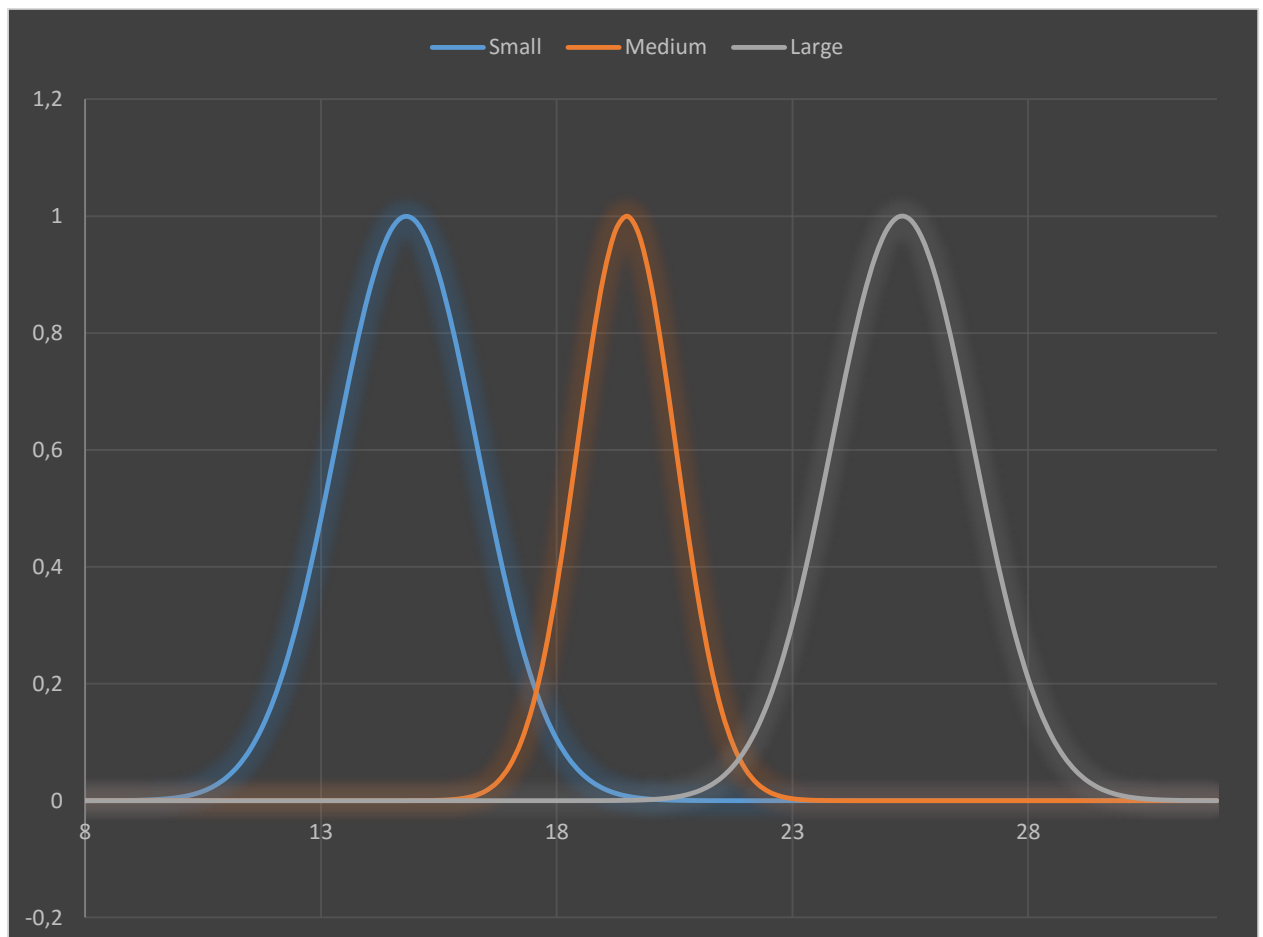
2) Malic acid



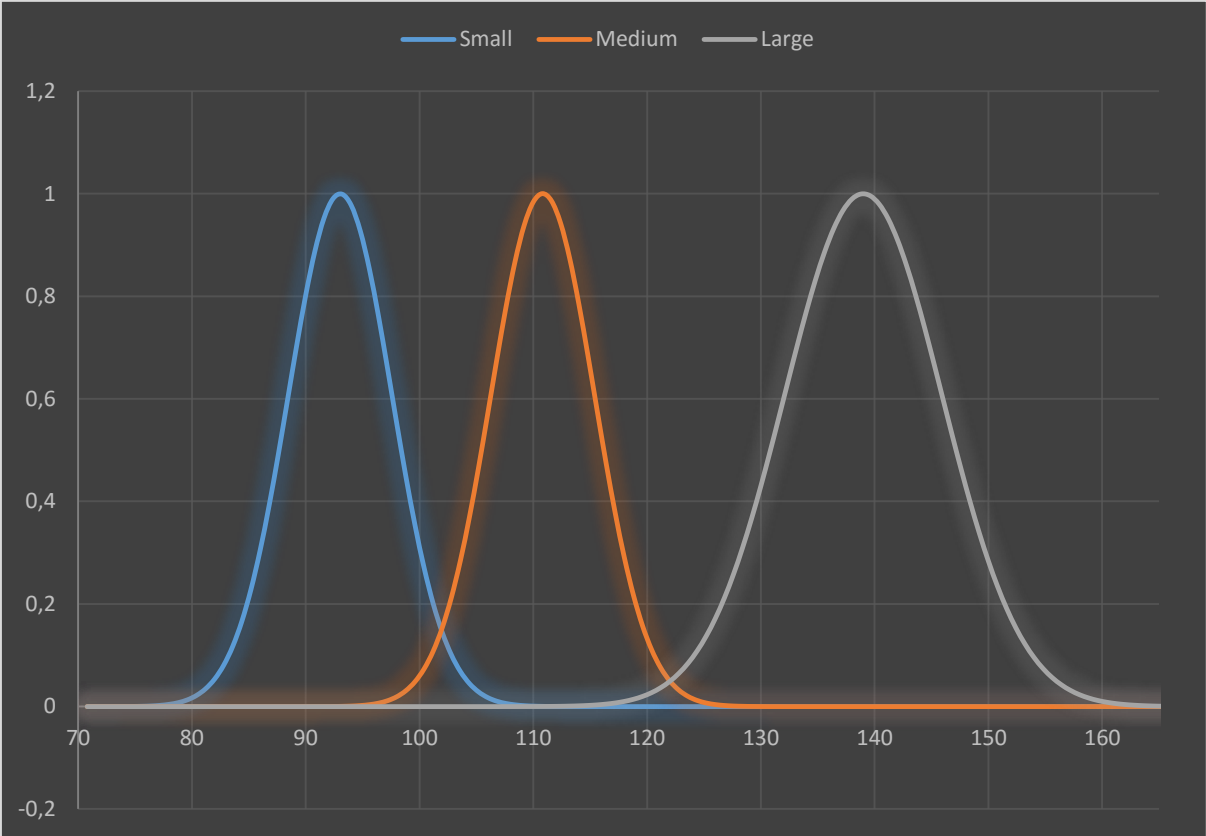
3) Ash



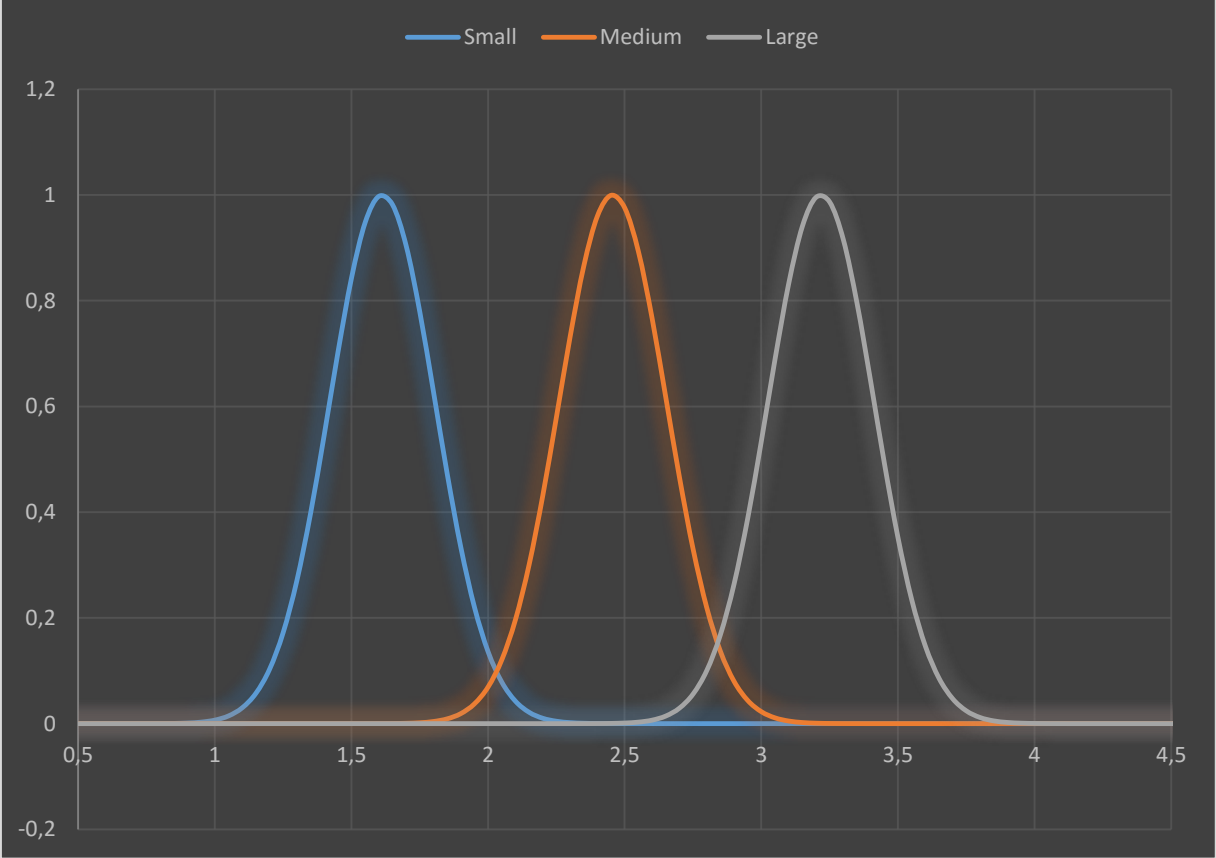
4) Alcalinity of ash



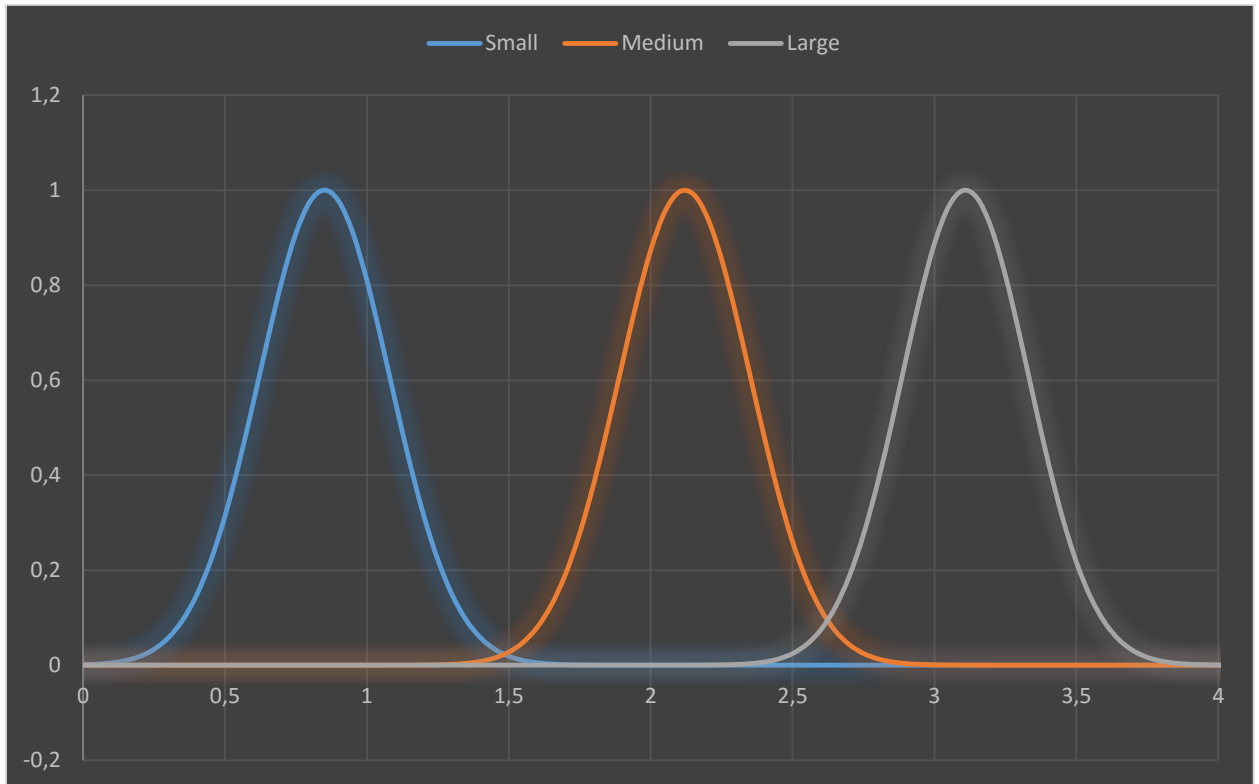
5) Magnesium



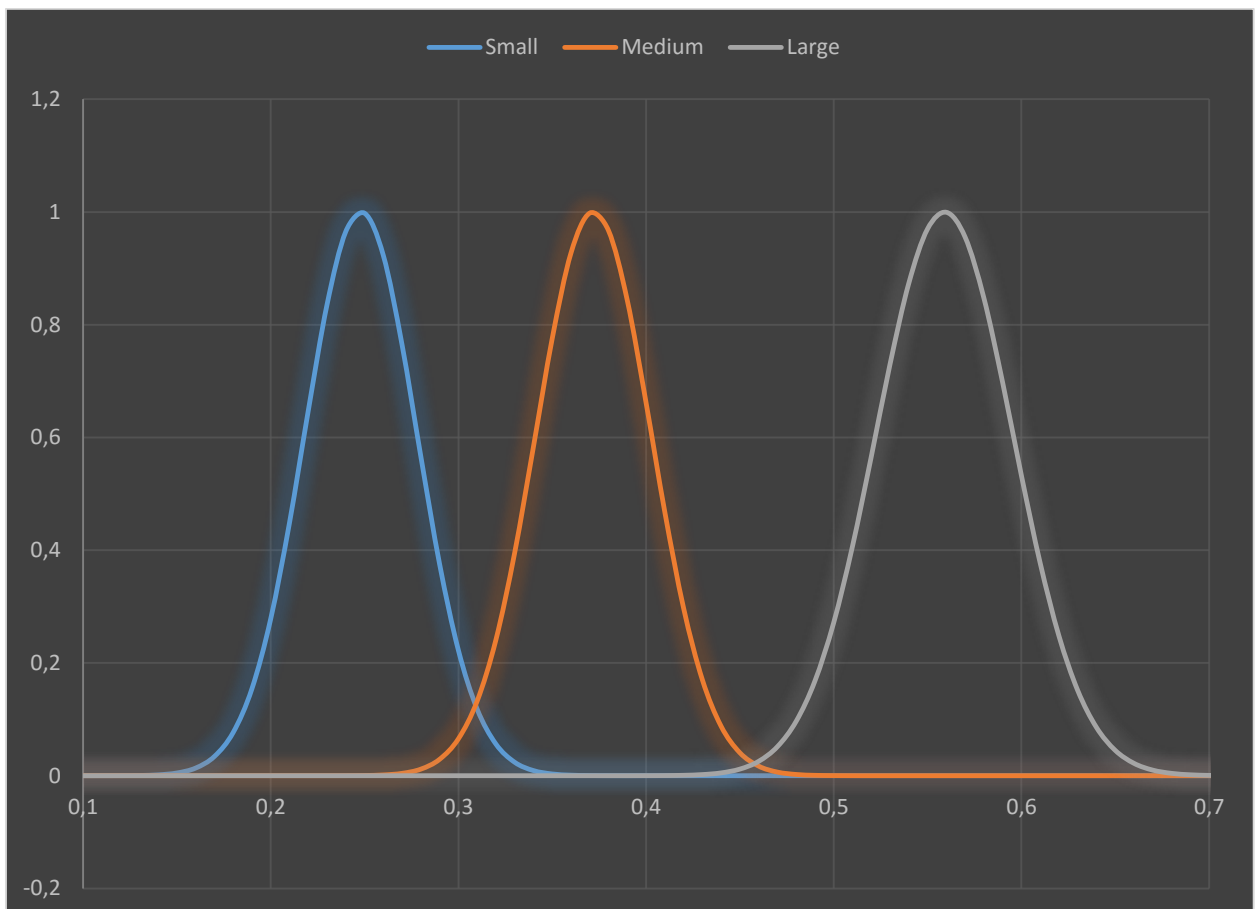
6) Total phenols



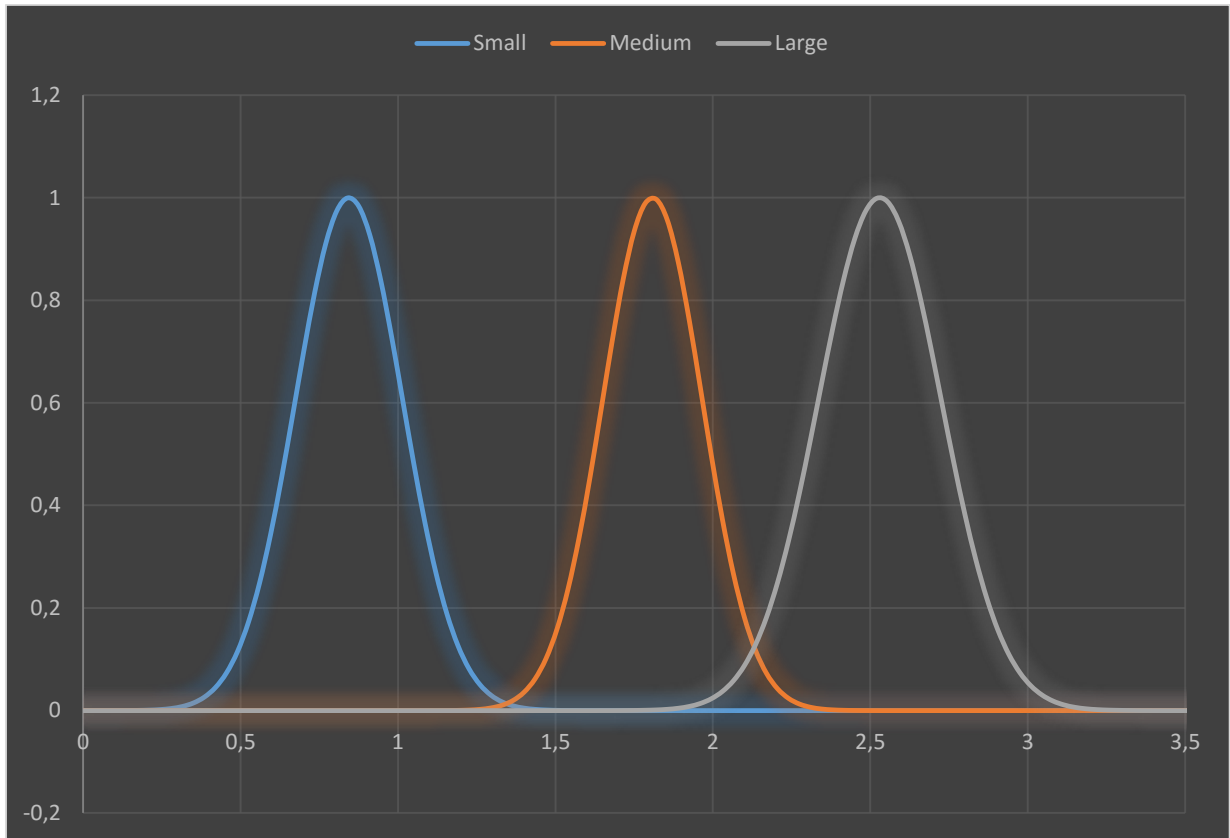
7) Flavanoids



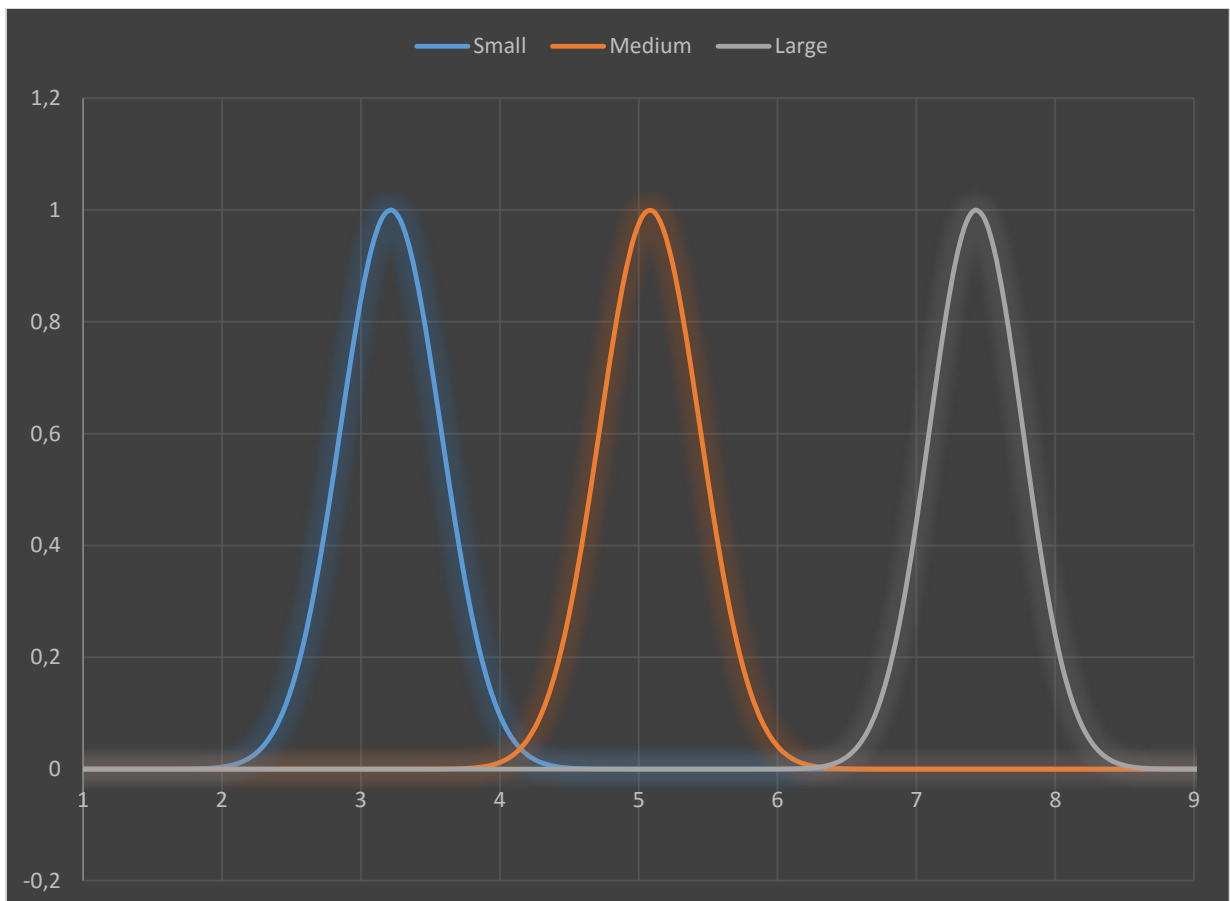
8) Nonflavanoid phenols



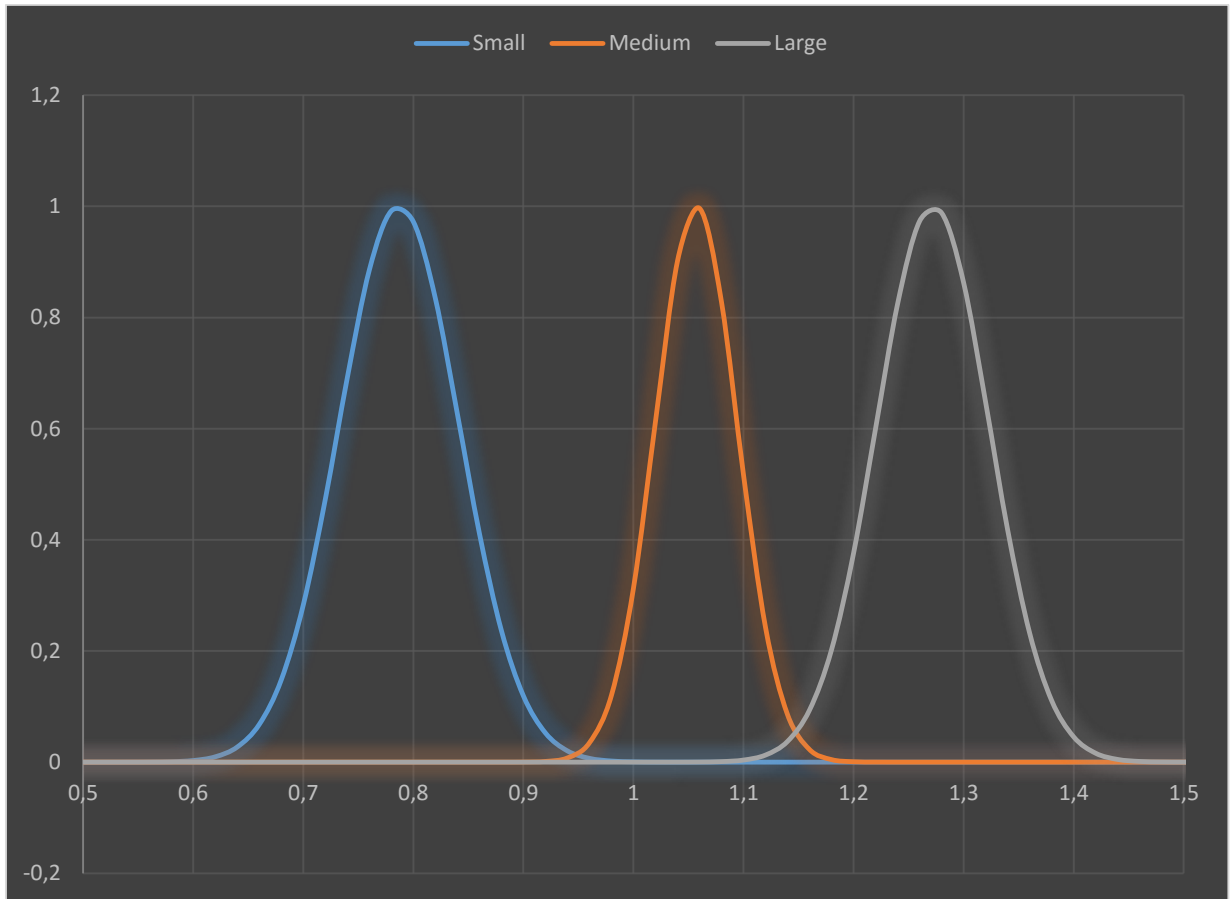
9) Proanthocyanins



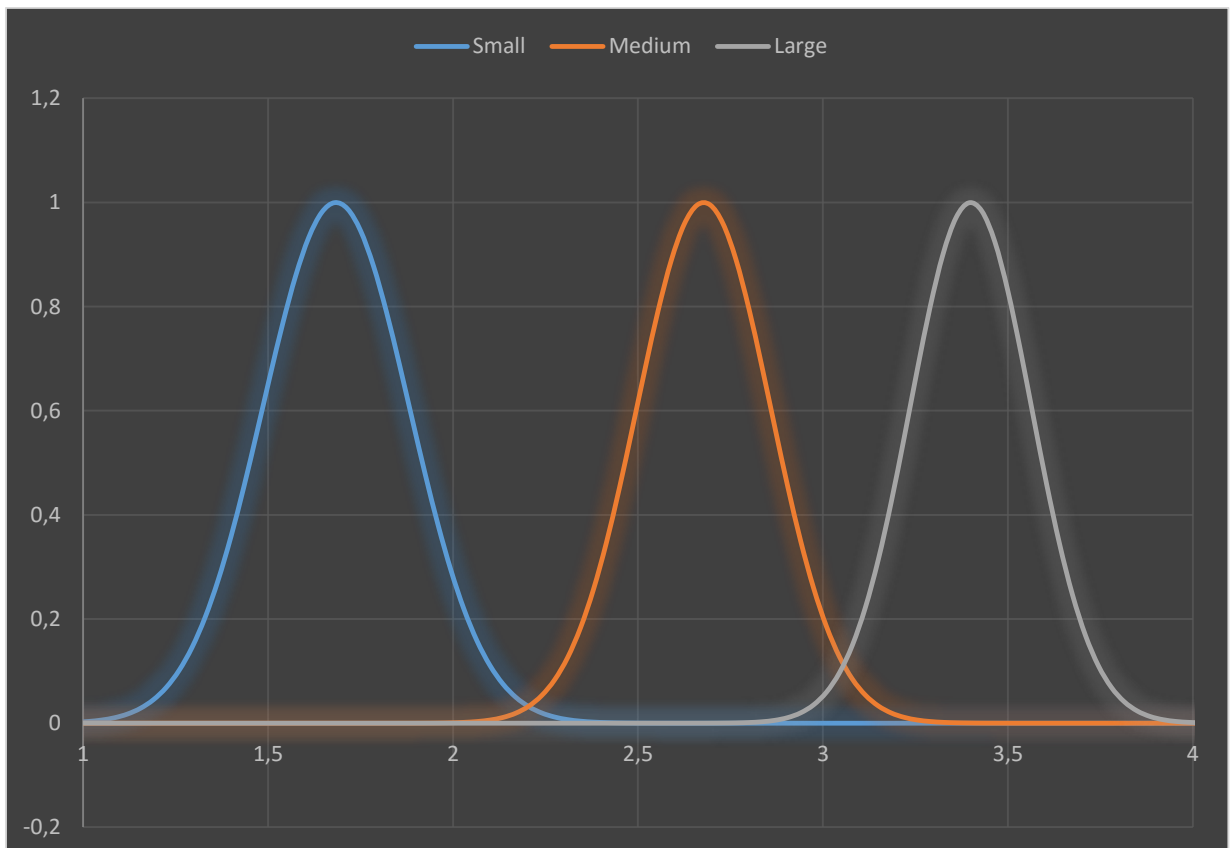
10) Color intensity



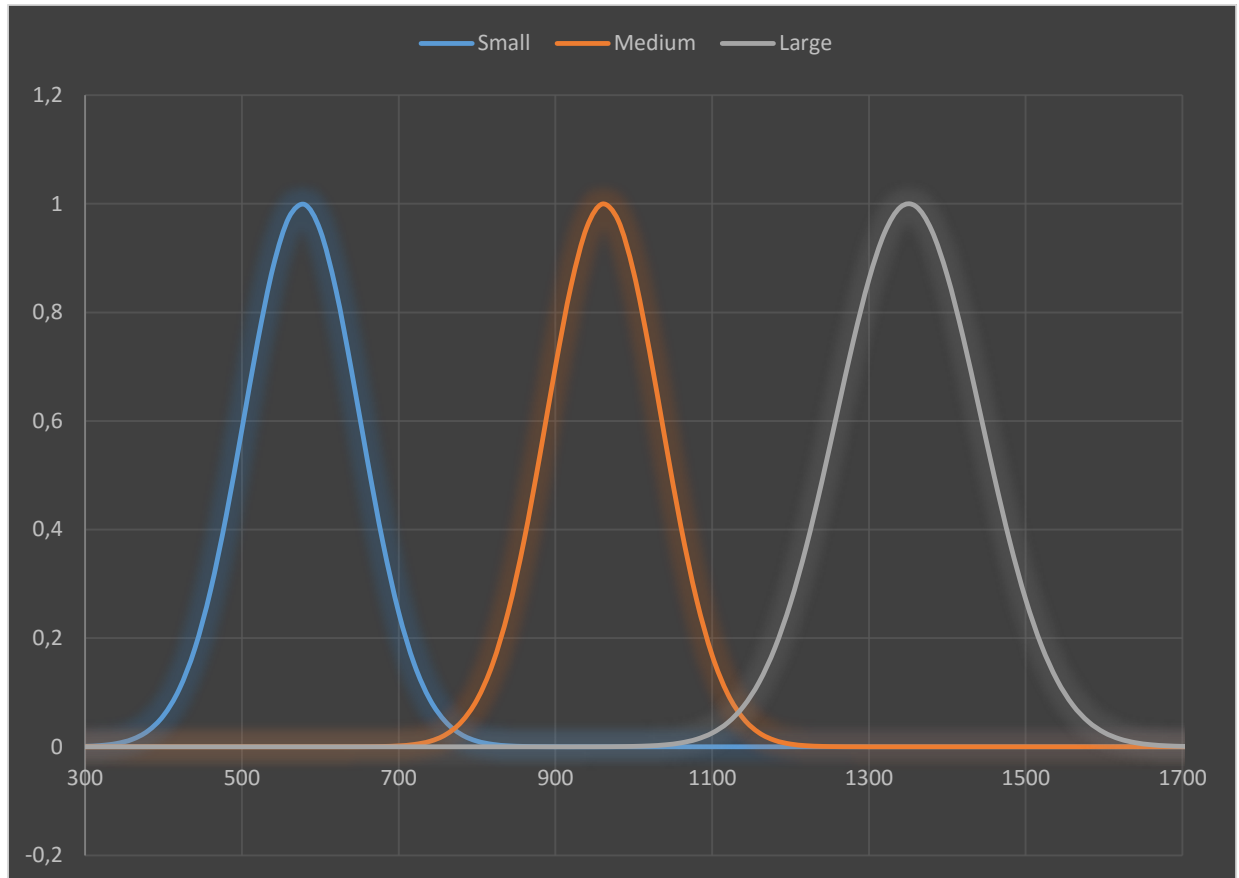
11)Hue



12)OD280/OD315 of diluted wines



13)Proline



Rules:

Rule 1: If x1=large; x2=small; x3=large; x4=small; x5=medium; x6=medium; x7=medium; x8=small; x9= medium; x10= medium; x11=medium; x12=large; x13= large, then class 1.

Rule 2: If x1= small; x2= small; x3= medium; x4= medium; x5= small; x6= medium; x7= medium; x8= medium; x9=small; x10=small; x11= large; x12= medium; x13=small, then class 2.

Rule 3: If x1=small; x2=medium; x3=large; x4=medium; x5=small; x6=small; x7=small; x8=medium; x9=small; x10=medium; x11=small; x12=small; x13=small, then class 3.

Rule 4: If x1=medium; x2=large; x3=small; x4=small; x5=medium; x6=large; x7=small; x8=small; x9=small; x10=small; x11=medium; x12=large; x13=small, then other.

Evaluate rules:

Data №:	Class 1	Class 2	Class 3	Result:
№ 1	A	B	C	Good
№ 2	A	B	C	Good
№ 3	A	B	C	Good
№ 4	A	B	C	Good
№ 5	A	B	C	Good
№ 6	A	B	C	Good
№ 7	A	B	C	Good
№ 8	A	B	C	Good
№ 9	A	B	C	Good
№ 10	A	C	C	Not good
№ 11	A	B	C	Good
№ 12	A	B	C	Good
№ 13	A	B	C	Good
№ 14	A	B	C	Good
№ 15	A	B	C	Good
№ 16	A	B	C	Good
№ 17	A	B	C	Good
№ 18	A	B	C	Good
№ 19	A	B	C	Good
№ 20	A	B	C	Good
№ 21	A	B	C	Good
№ 22	A	A	C	Not good
№ 23	B	C	C	Not good
№ 24	B	B	C	Not good
№ 25	A	B	C	Good
№ 26	A	B	C	Good
№ 27	A	B	C	Good
№ 28	A	B	C	Good
№ 29	C	B	C	Not good
№ 30	A	B	C	Good
№ 31	A	B	C	Good
№ 32	A	B	C	Good
№ 33	A	B	C	Good
№ 34	A	C		
№ 35	A	B		
№ 36	A	B		
№ 37	A	B		
№ 38	A	B		
№ 39	A	B		
№ 40	A	B		
№ 41	A	B		
№ 42	A	B		
№ 43	A	B		
№ 44	A	B		
№ 45		C		

№ 46		B		
№ 47		B		
№ 48		B		
№ 49		C		
№ 50		C		
№ 51		B		
№ 52		B		
№ 53		B		
№ 54		B		
№ 55		B		
№ 56		C		
Success Rate:	93.2%	85.7%	100%	84.9%