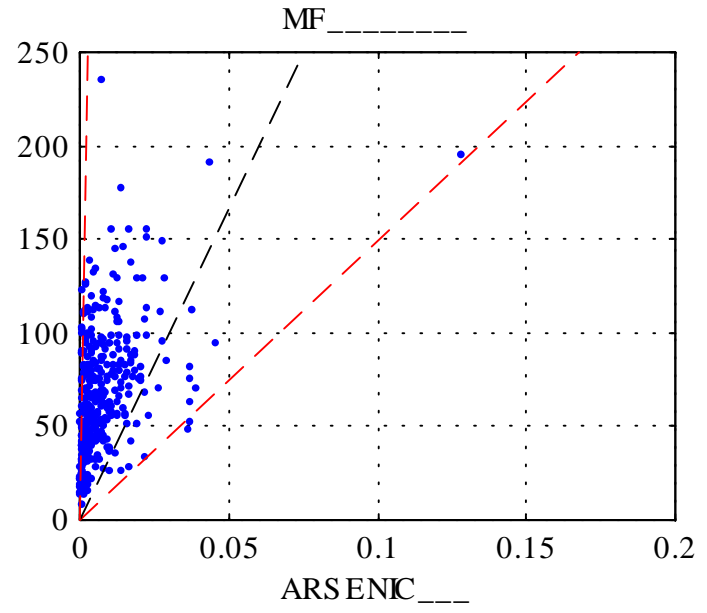
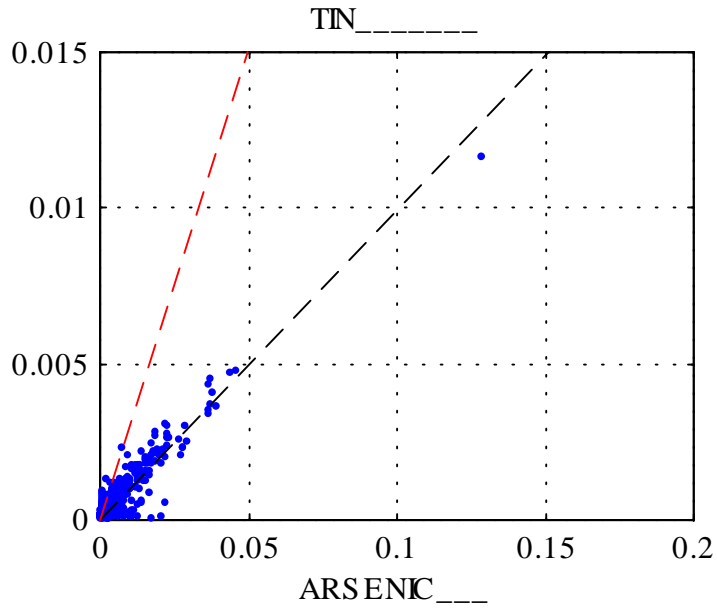
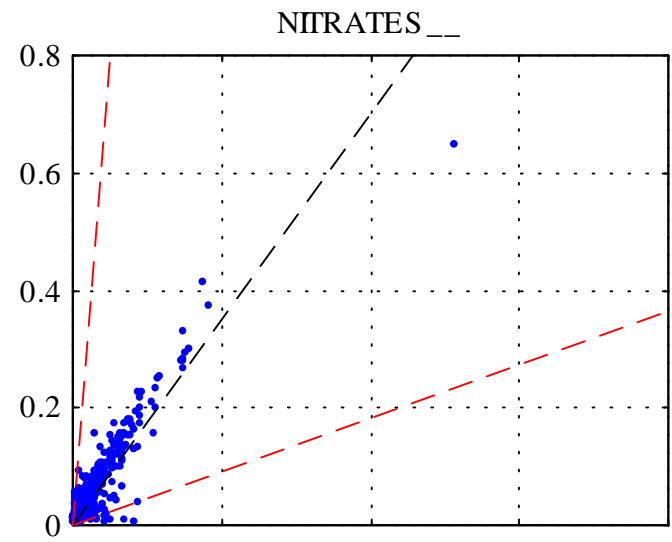
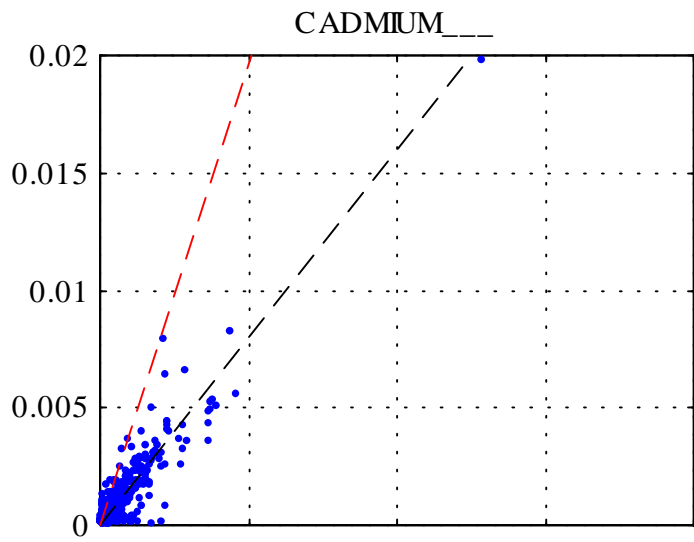
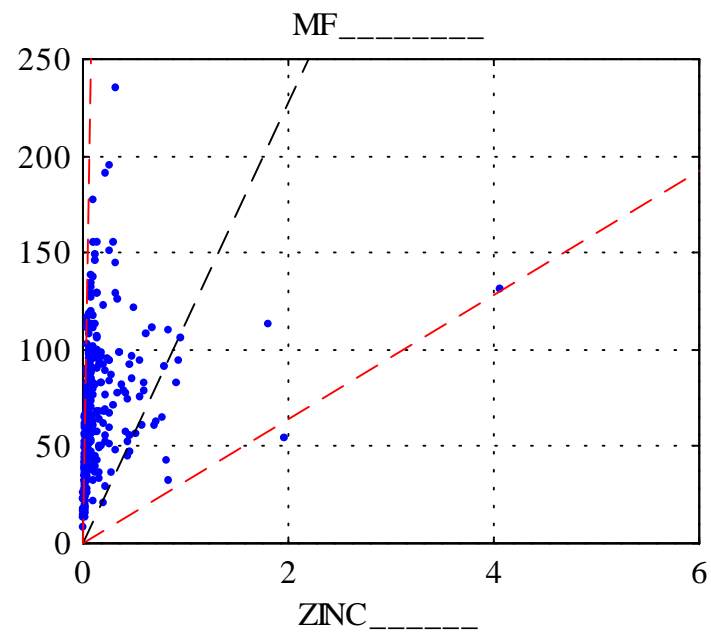
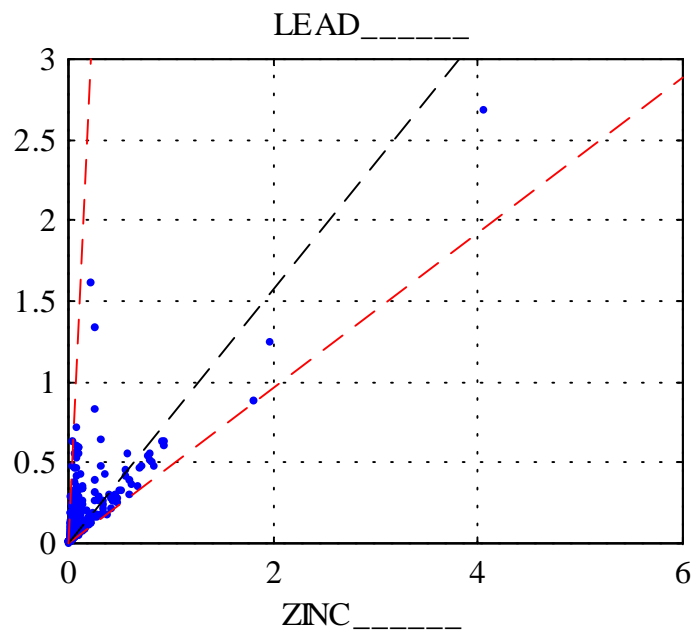
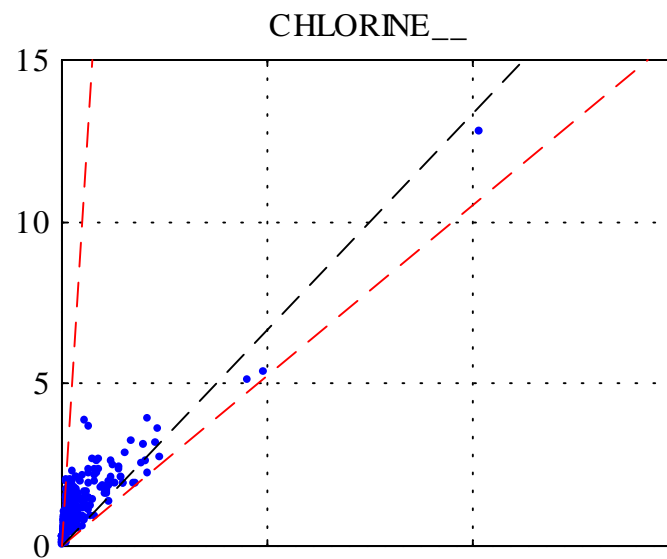
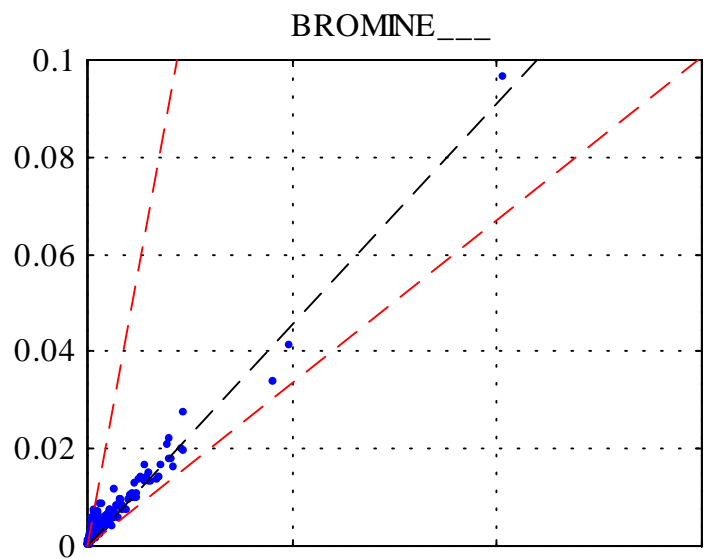


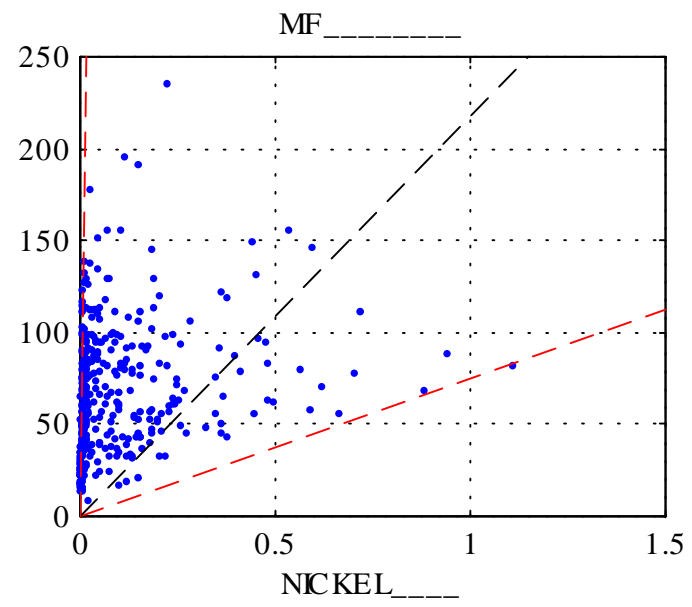
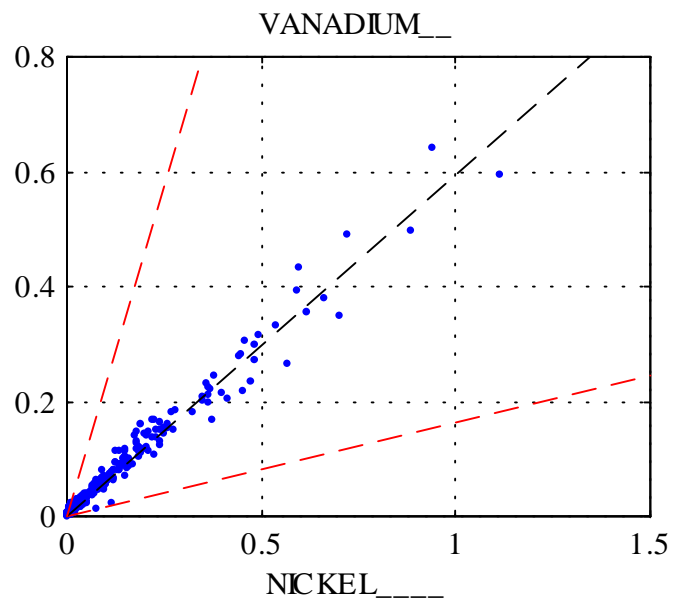
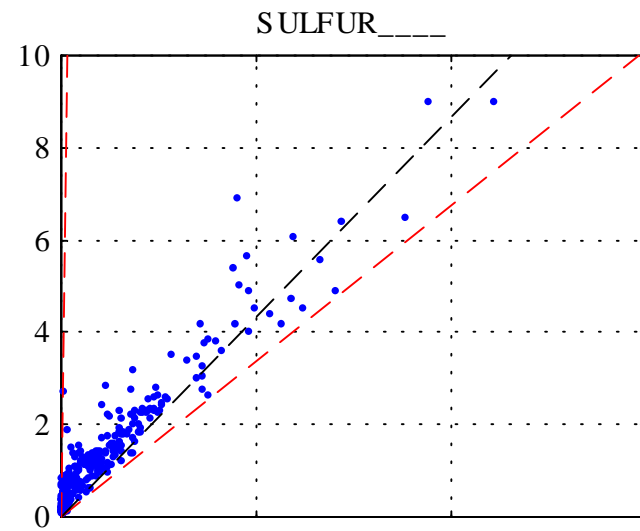
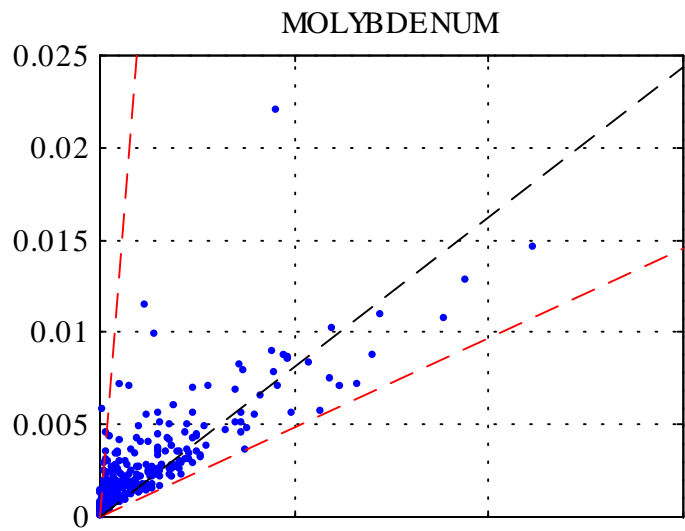
Simulated Data Results

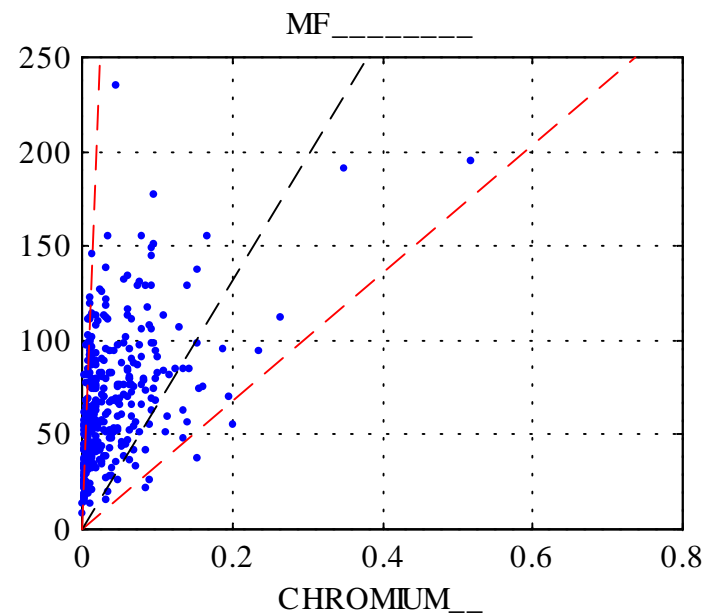
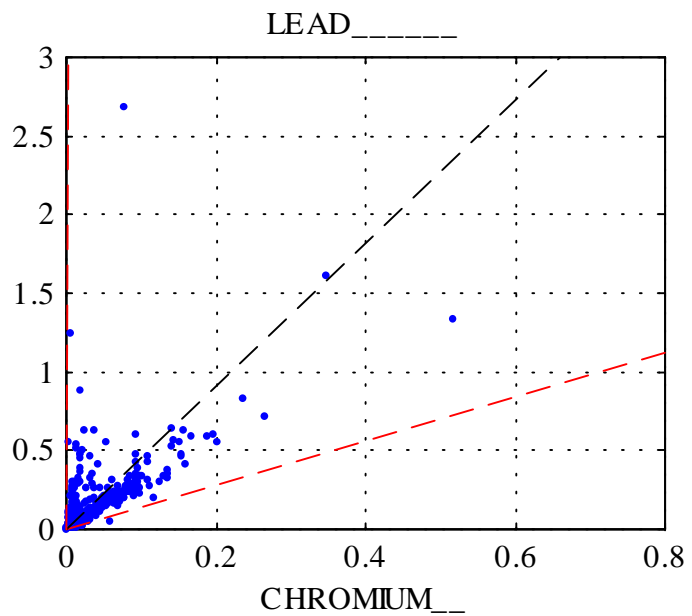
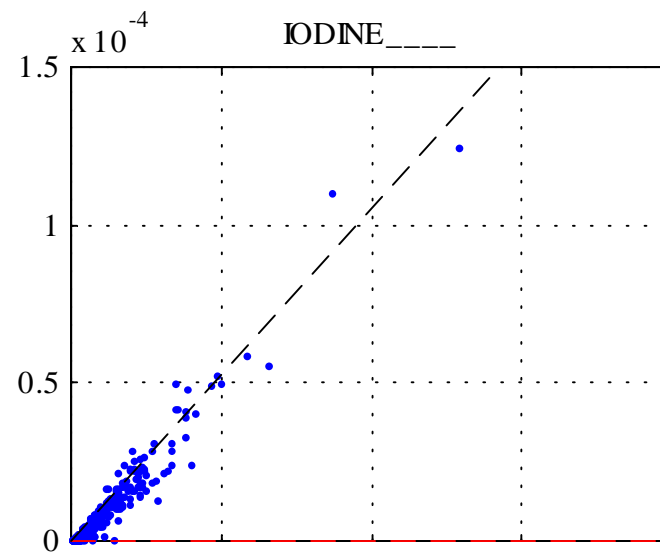
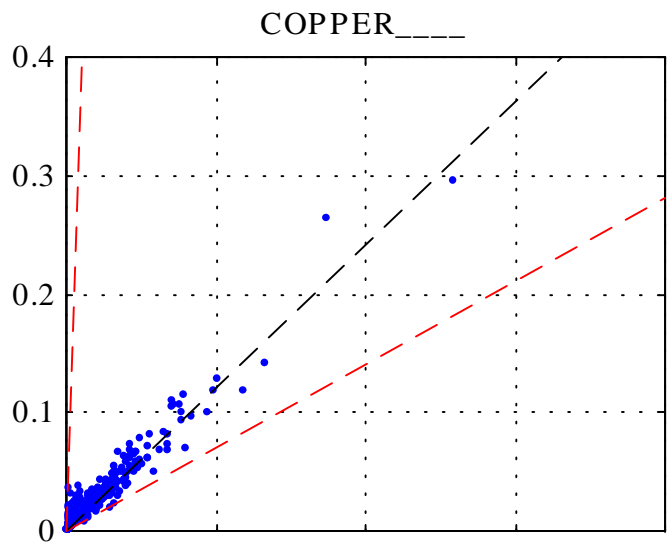
Start with Graphical Analysis

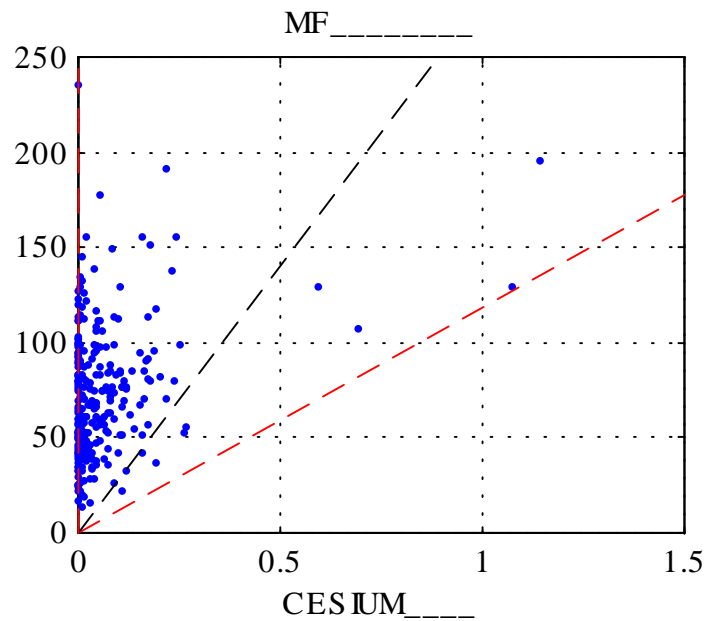
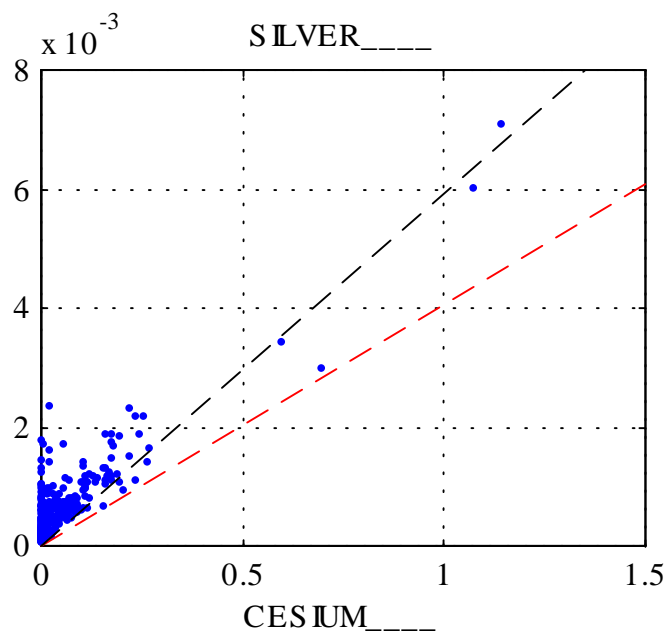
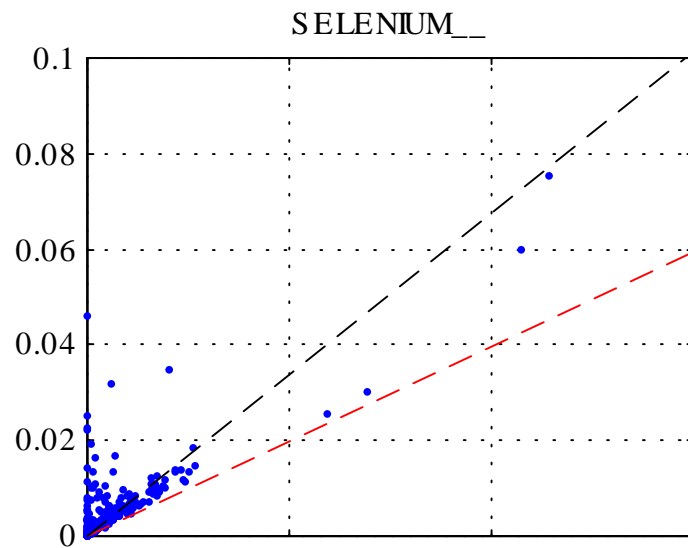
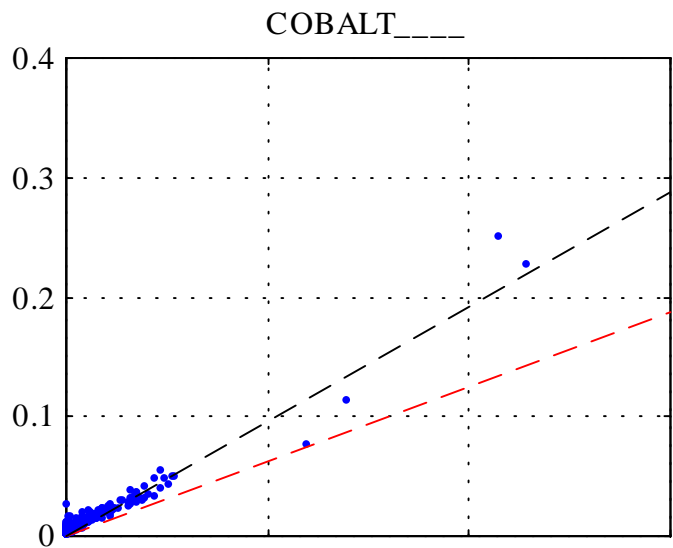
- Look for
 - Straight lines
 - edges
 - outliers











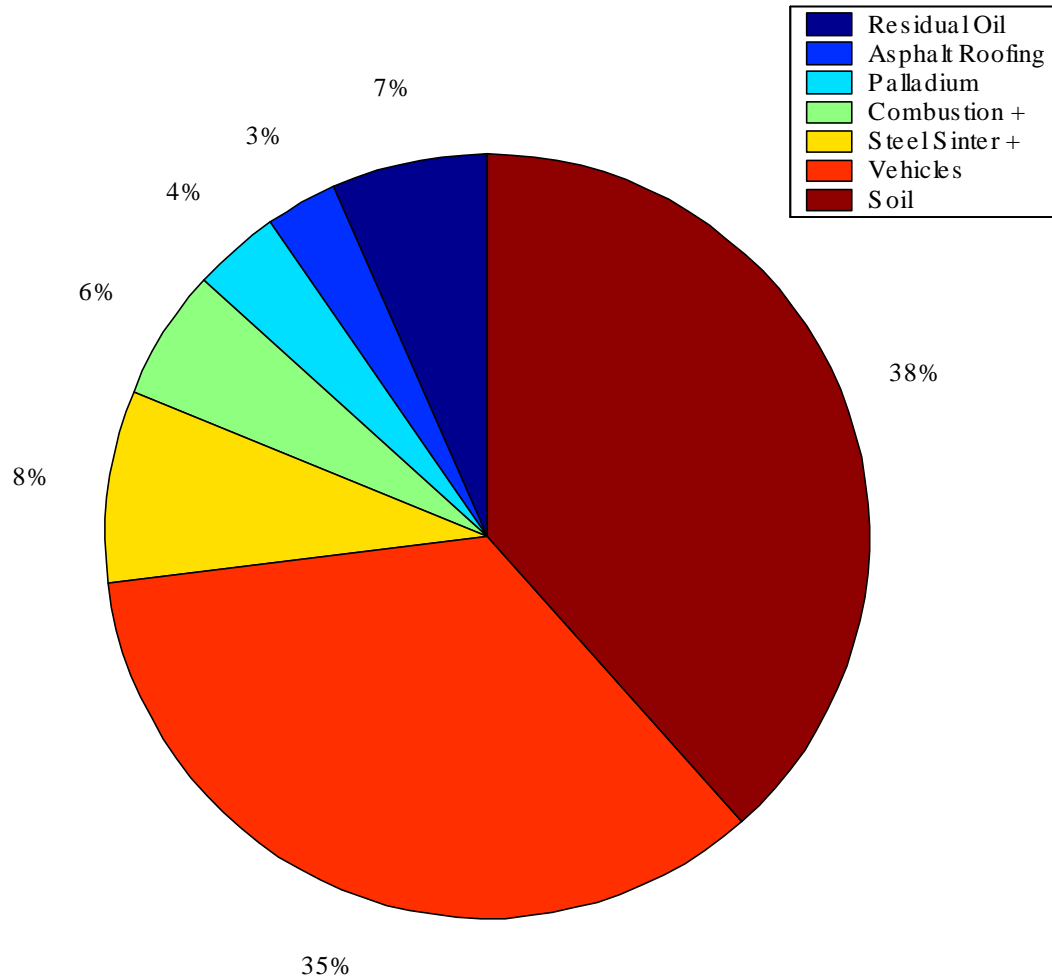
Sources Other Than Soil and Vehicles

Source	Defining Elements
Asphalt Roofing	Cs, Co
Residual Oil	Ni, V
Combustion	Zn, Br
Steel Sinter +s'blast?	Cu, Cr
Aircraft Jet Fuel	As, NO ₃
Unknown	Mg, Pd, Se

Seven Source Solution

	Res.Oil	Roofing	Palladium	Combustion	Steel Sinter	Vehicles	Soil
ALUMINUM__	0.01811	0.07395	0.01885	0.01236	0.02985	0.01979	0.05909
BROMINE__	0.00006	-0.00001	0.00006	0.00040	0.00003	0.00001	0.00003
CALCIUM__	0.00858	0.03788	0.03740	0.00919	0.02785	0.01443	0.03236
CARBONATE_	0.00039	0.00117	0.00086	0.00047	0.00088	0.00068	0.00160
CESIUM__	-0.00013	0.02545	-0.00008	0.00002	0.00084	-0.00012	0.00006
CHLORINE__	0.00051	-0.02011	0.01154	0.05897	0.03787	0.01597	0.00772
CHROMIUM__	0.00003	0.00164	-0.00038	0.00016	0.00711	0.00005	0.00013
COBALT__	0.00001	0.00499	0.00004	0.00002	-0.00003	0.00004	0.00011
COPPER__	0.00027	0.00095	-0.00008	0.00020	0.00437	-0.00000	0.00014
ELEM_CARBO	0.07083	-0.03883	0.27043	0.20619	0.09447	0.27146	0.06948
IODINE__	-0.00000	0.00000	-0.00000	-0.00000	0.00000	-0.00000	-0.00000
LEAD__	-0.00029	-0.00219	-0.00004	0.01096	0.02356	-0.00018	0.00068
NICKEL__	0.01305	0.00154	-0.00002	-0.00010	0.00023	-0.00003	0.00009
ORGANIC_CA	0.11061	-0.08629	0.25010	0.27899	0.12194	0.39487	0.13844
PALLADIUM__	0.00000	0.00000	0.00010	0.00000	-0.00000	0.00000	0.00000
SILICON__	0.05220	0.15158	0.07594	0.03796	0.11955	0.05672	0.15193
SILVER__	-0.00000	0.00013	0.00010	0.00000	0.00001	0.00000	0.00000
SODIUM__	0.00064	0.01053	0.00064	0.01420	0.00544	0.00366	0.00183
SULFATES__	0.01135	0.14763	-0.00431	0.03229	0.10018	0.00982	0.00063
SULFUR__	0.10360	0.00971	0.01094	0.01575	0.00804	0.00867	0.00356
TITANIUM__	0.00141	0.00418	0.00131	0.00115	0.00265	0.00129	0.00407
VANADIUM__	0.00778	0.00007	0.00010	0.00007	0.00013	0.00004	0.00023
ZINC__	0.00047	-0.00536	0.00023	0.01906	0.00173	0.00013	0.00070
MF__	4.76951	2.18951	2.70603	4.01118	5.91522	25.17185	27.88252

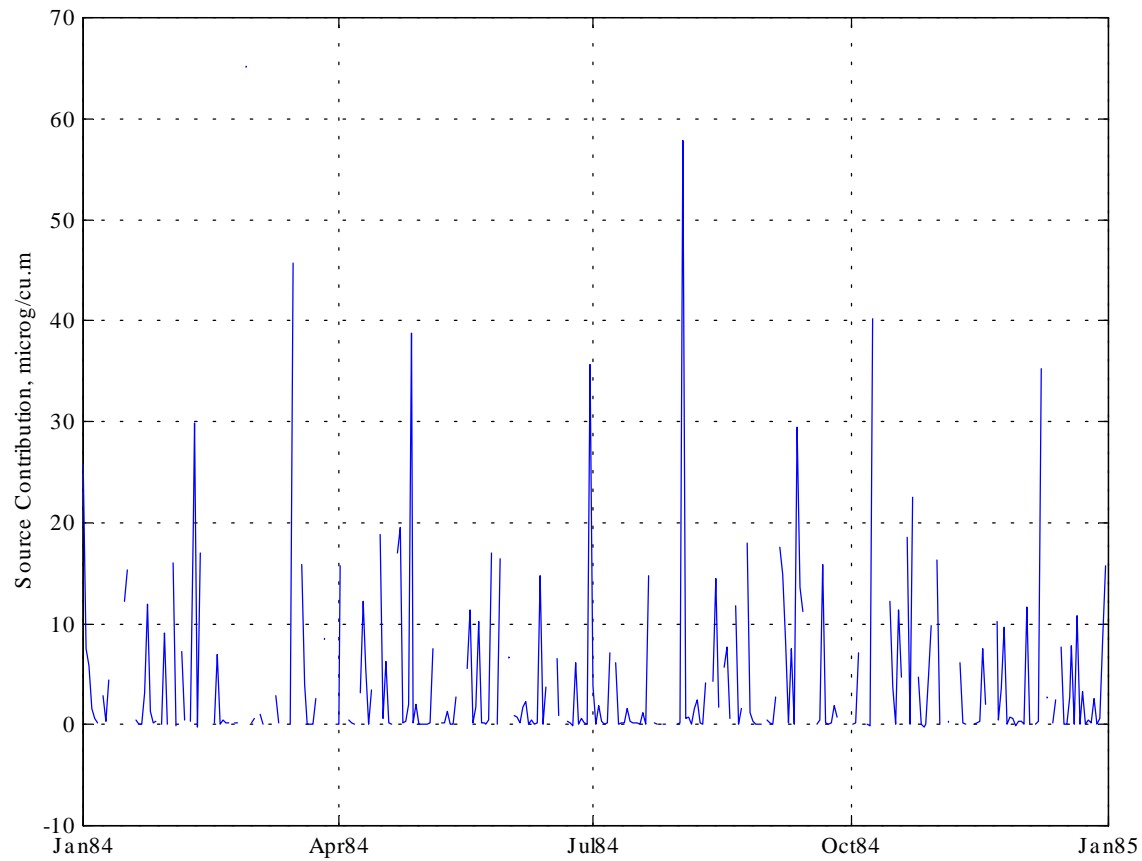
Seven Source Solution



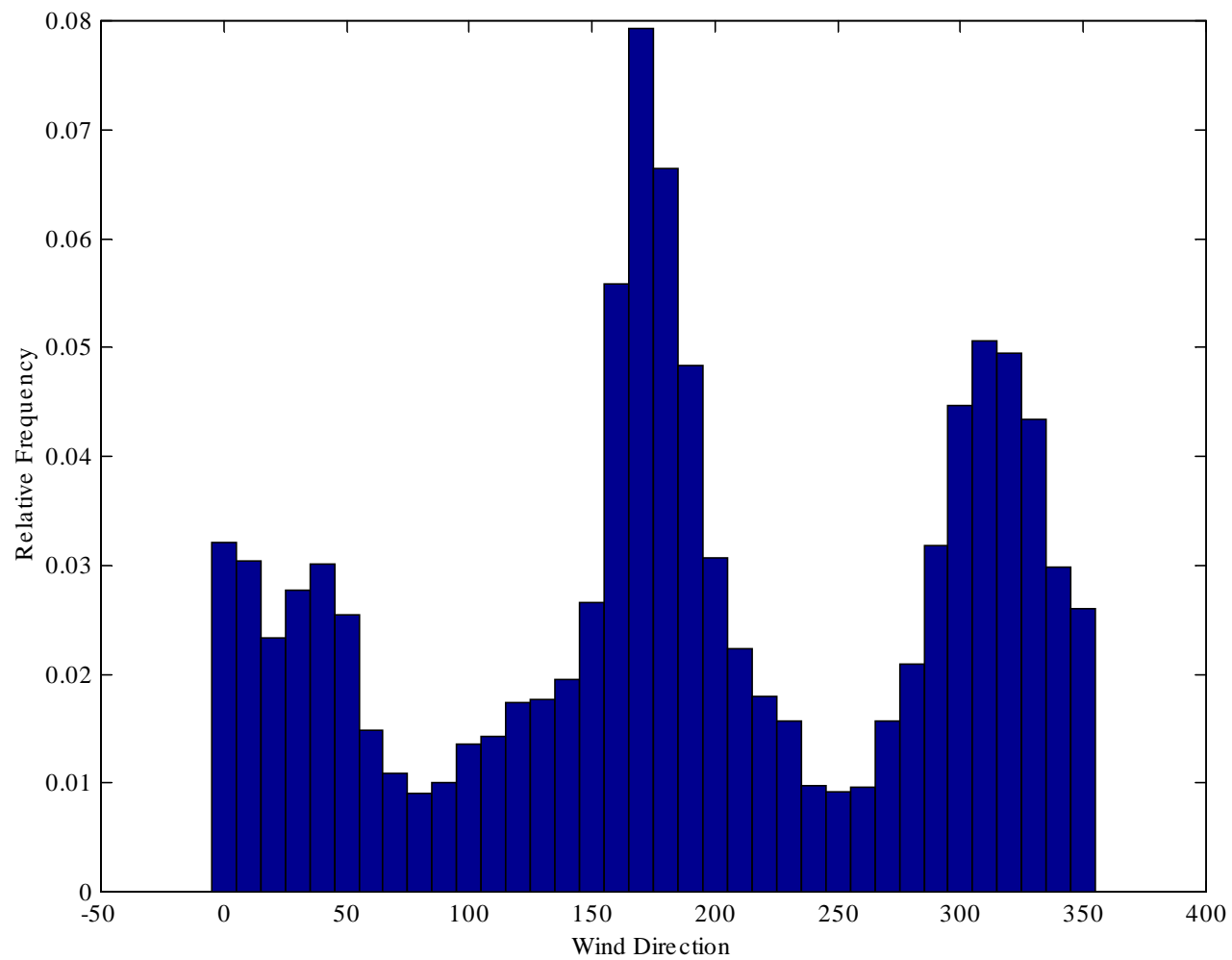
Simulated Data Source Apportionment

	Mean($\mu\text{g}/\text{m}^3$)	Std. Dev.
Soil	26.9	2.4
Vehicles	24.6	2.3
Residual Oil	6.7	0.8
Combustion	2.8	0.8
Remaining sources	6.5	4.9

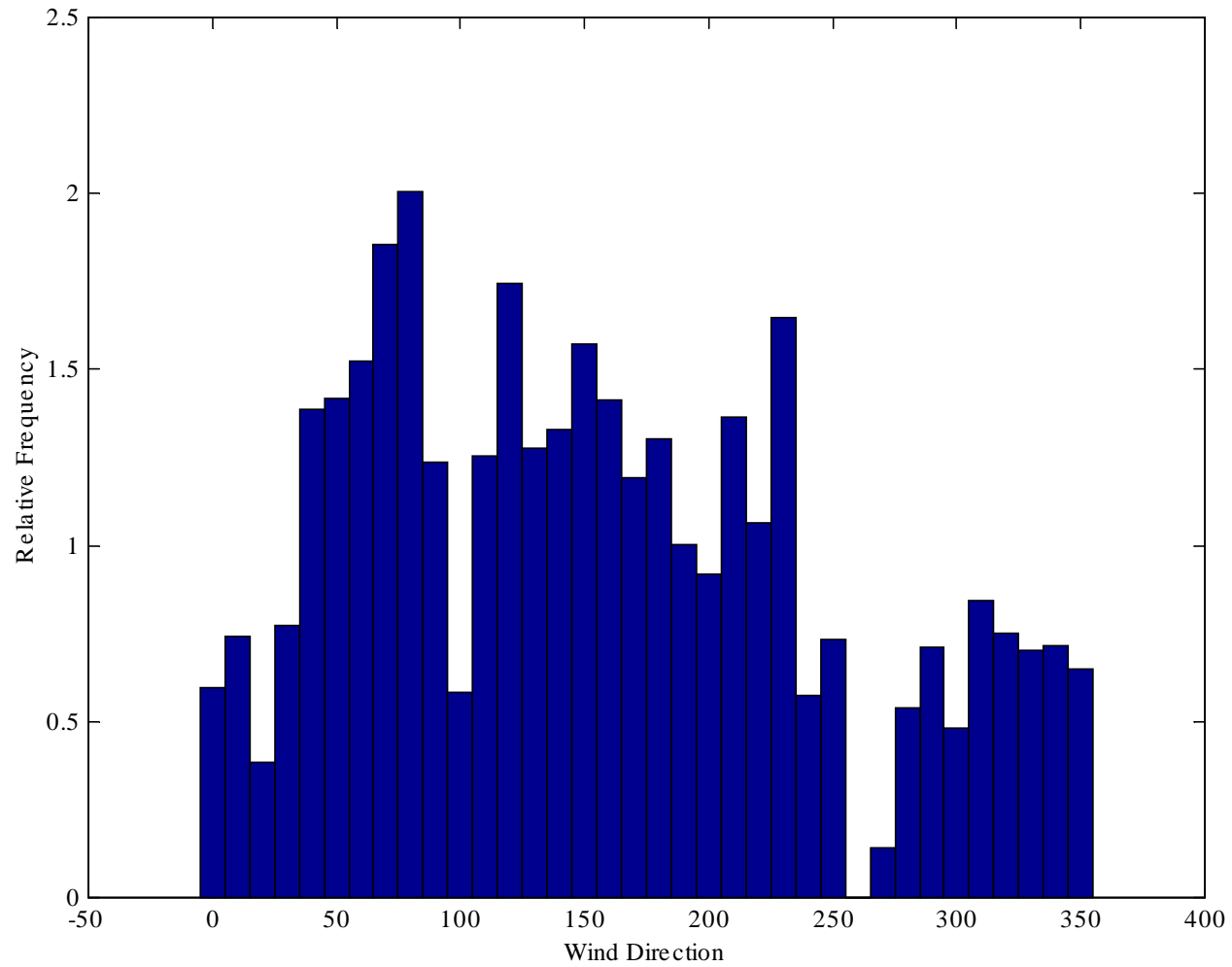
Residual Oil Source Contributions



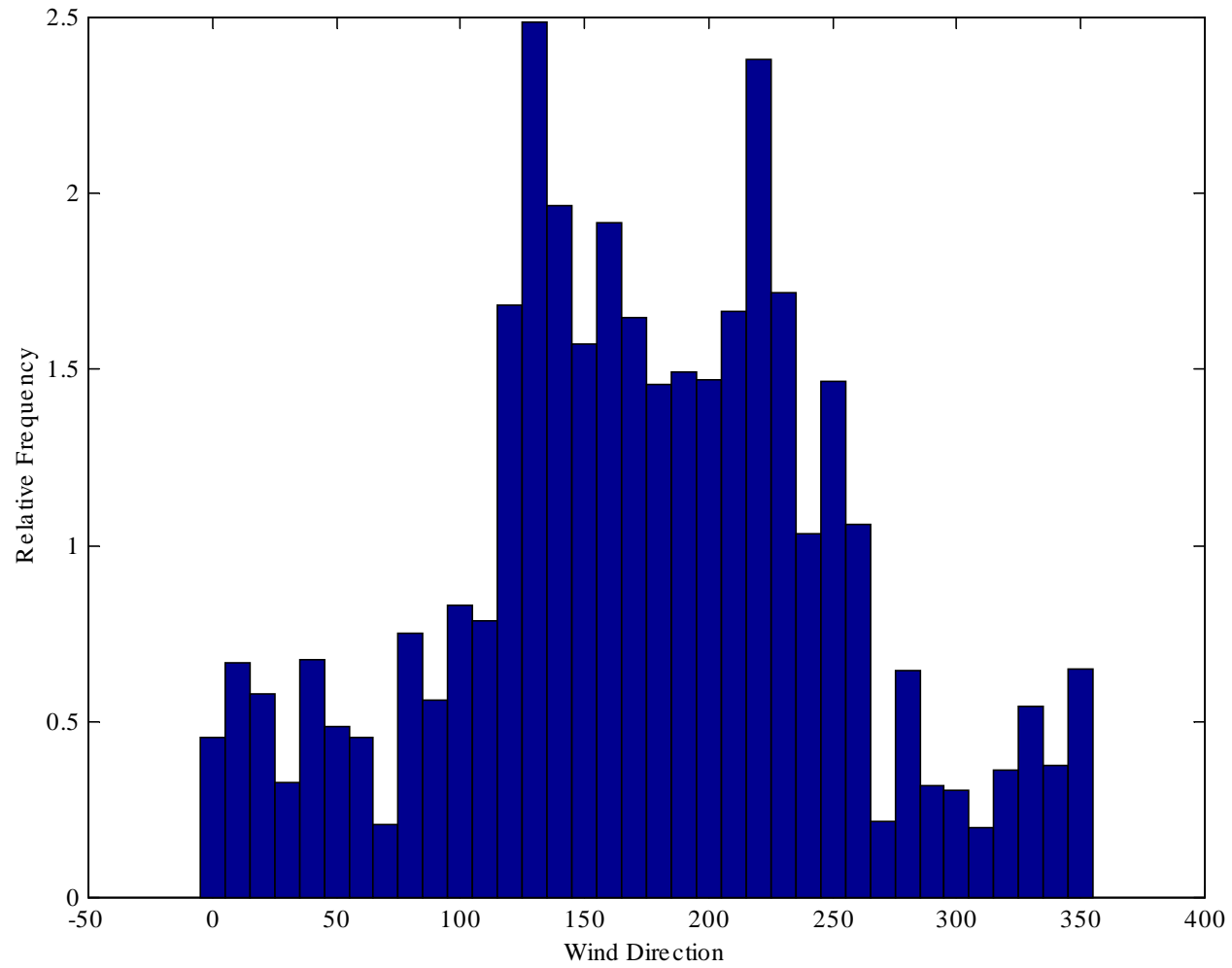
Wind Frequency



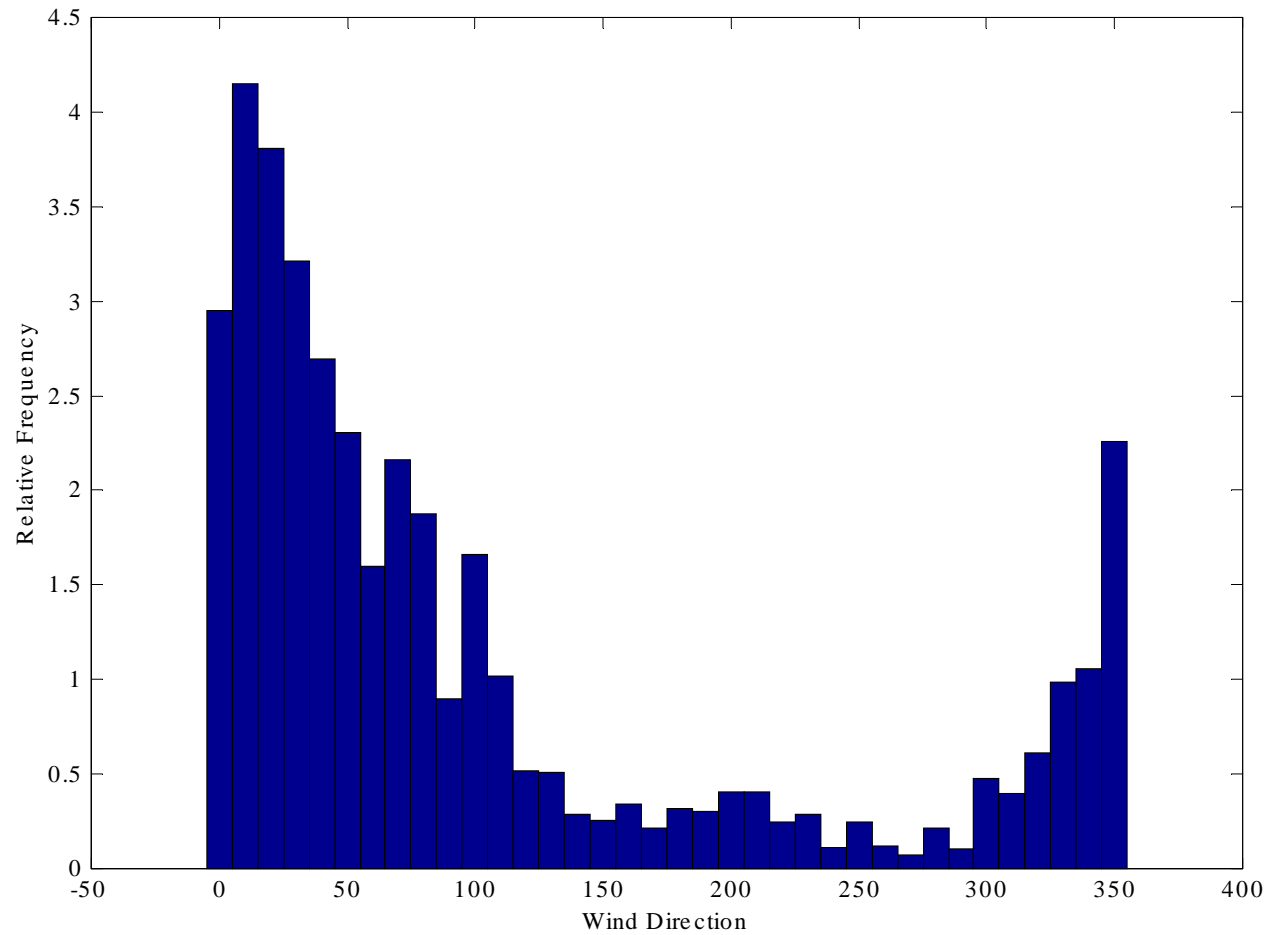
Vehicle Exhaust



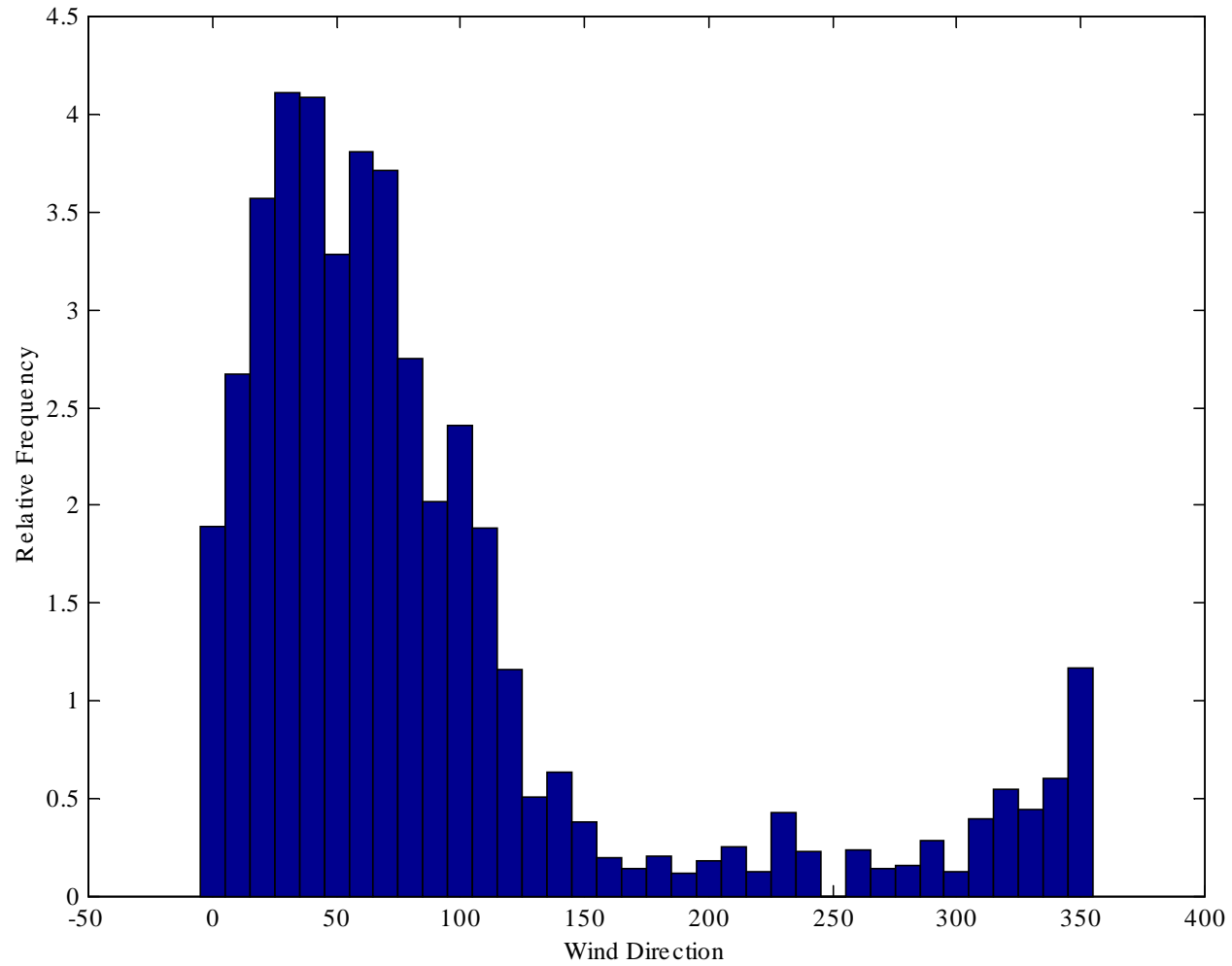
Soil Dust



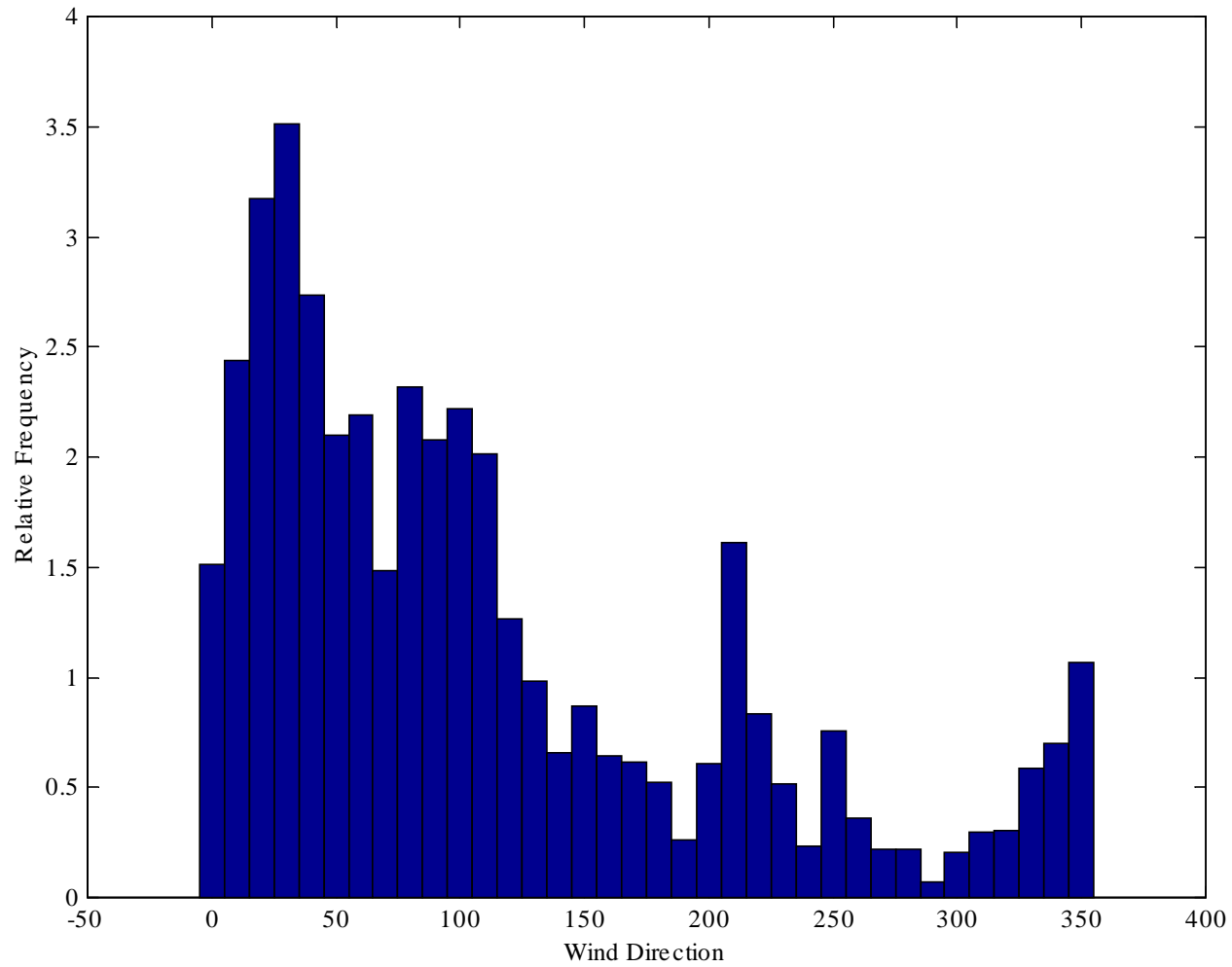
Residual Oil Source



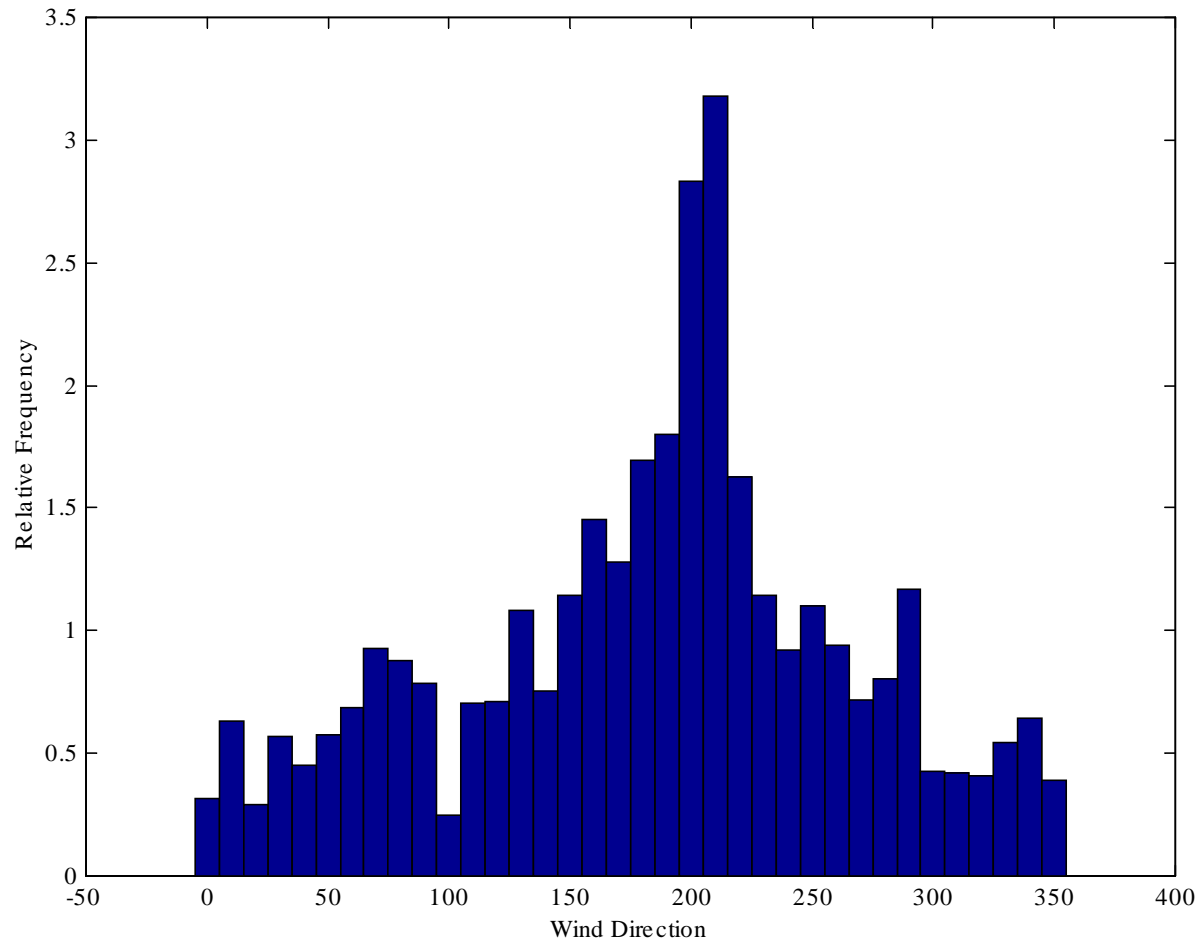
Combustion



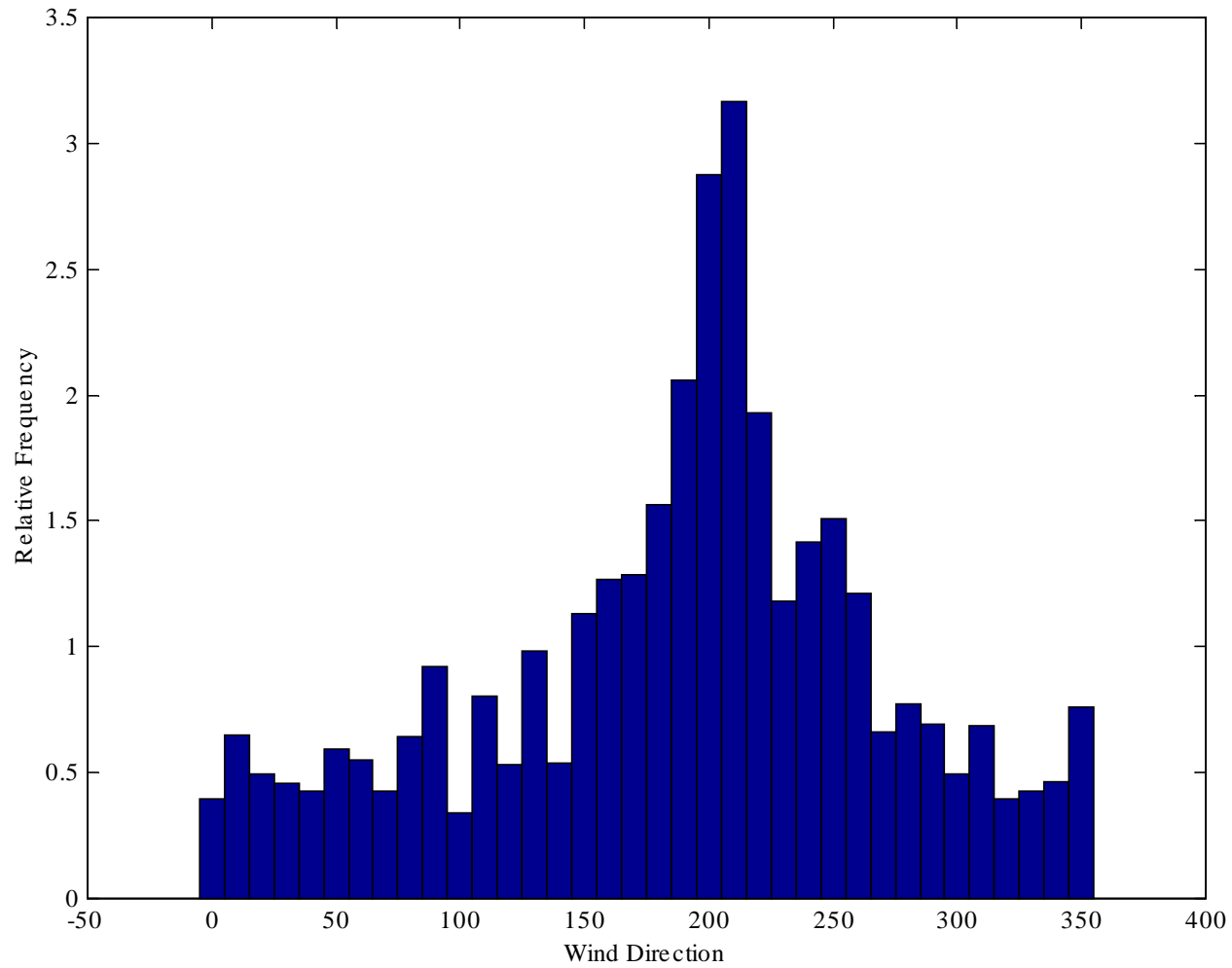
Selenium Source



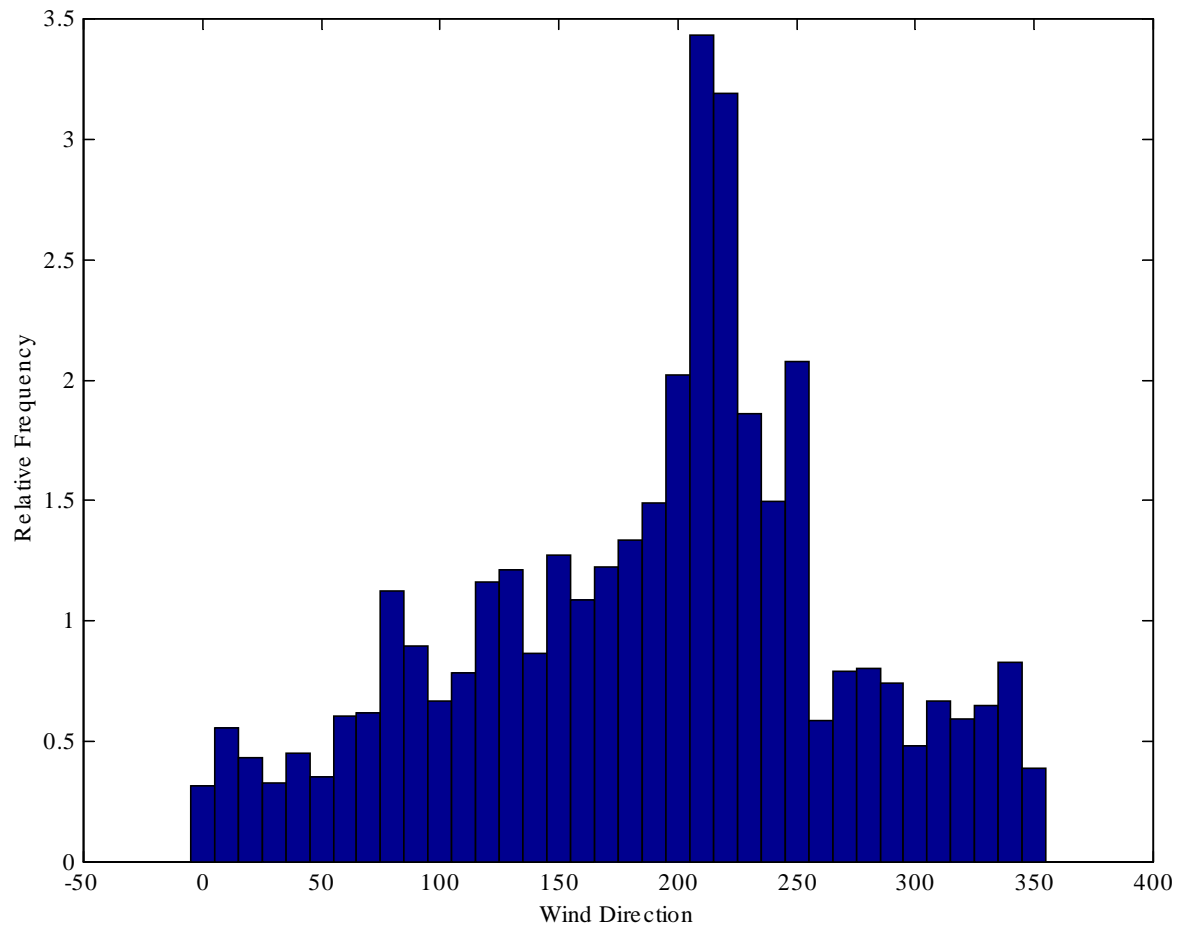
Steel Sinter



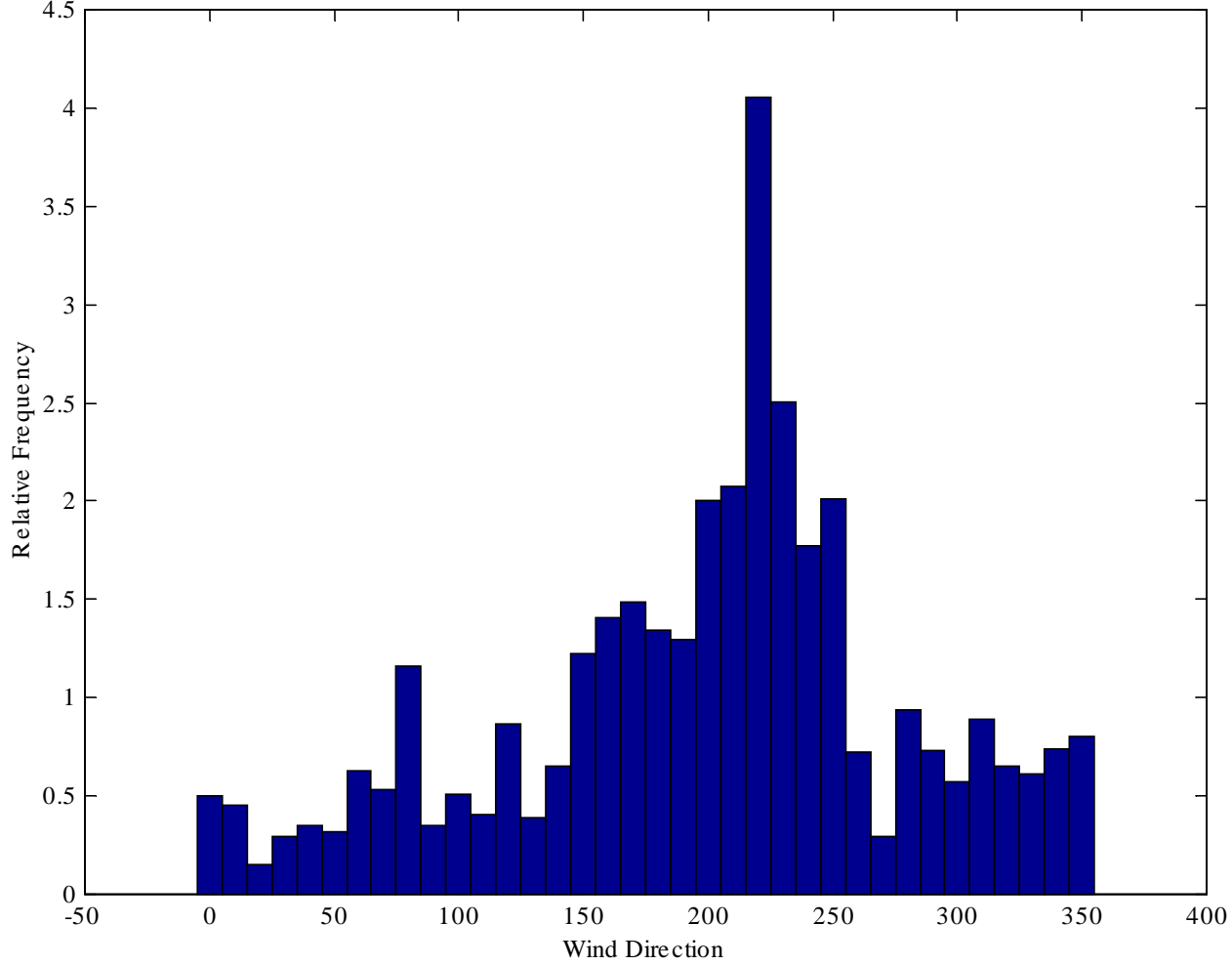
Aircraft - Jet Fuel



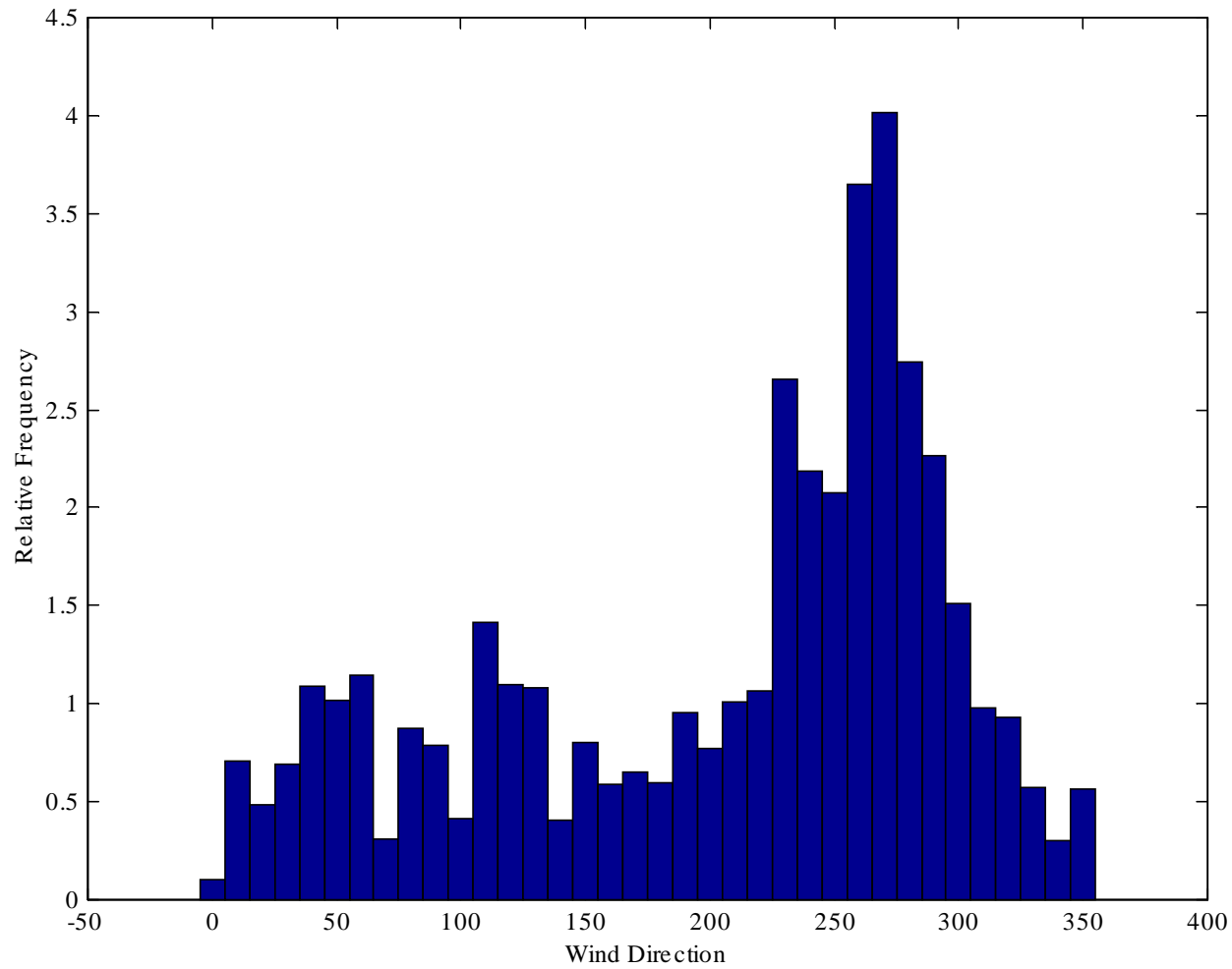
Asphalt Roofing



Mg Source



Palladium Source



Direction of Sources

Residual Oil	10 –30
Combustion (broad)	30-50 (60 - 80)
Se (broad)	20 – 40
Steel Sinter +s'blast?	200 –220
Aircraft Jet Fuel	200 –220
Asphalt Roofing	210 – 230
Pd	260 - 280
Mg	215 - 235