

Linear regression model and response surface for optimization

```
install.packages("rsm")
library("rsm")
EE <- as.coded.data(EE, x1 ~ (AS-1.5)/0.25, x2 ~ (SF-20)/10)
str(EE)
model_Y <- rsm(R ~ FO(x1,x2) + TWI(x1,x2) + PQ(x1,x2), data = EE)
model_Y
summary(model_Y)
model_Y <- rsm(R ~ FO(x1,x2) + PQ(x1,x2), data = EE)
model_Y
summary(model_Y)
par(mfrow = c(1,1))
persp(model_Y, x2~x1, zlab = "EE(g)", contours = list(z = "bottom",
col = "colors"), at = c(summary(model_Y$canonical$xs)), theta = 230,
phi = 25)
```

* %EE = Encapsulation efficiency (%)
* AS = Sodium alginate (%)
* SF = Ferrous sulfate (%)

