

Stof bevat	product	Effect op milieu	Toelichting
H	H ₂ O	niets	
C	CO ₂ CO C (roet)	Broeikaseffect Zeer giftig, smog Fijnstof (smog)	Bij onvolledige verbranding
S	SO ₂	Zure decompositie, giftig, smog	
N	N ₂ NO _x	niets Zure decompositie, giftig, smog	

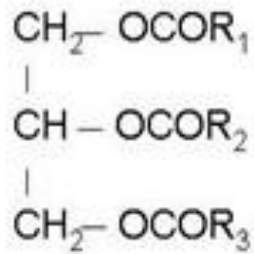
CO₂-neutraal

Biobrandstoffen

- PPO (pure plantaardige olie)
- Biodiesel
- Biogas

Biodiesel maken

ppo omesteren met methanol



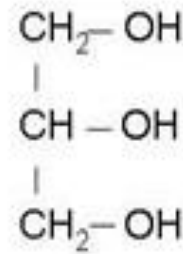
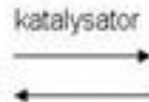
Triglyceride

ppo

+

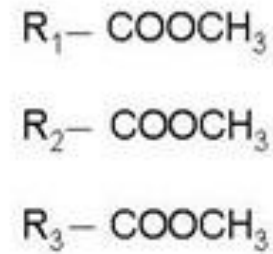


Methanol



Glycerol

+

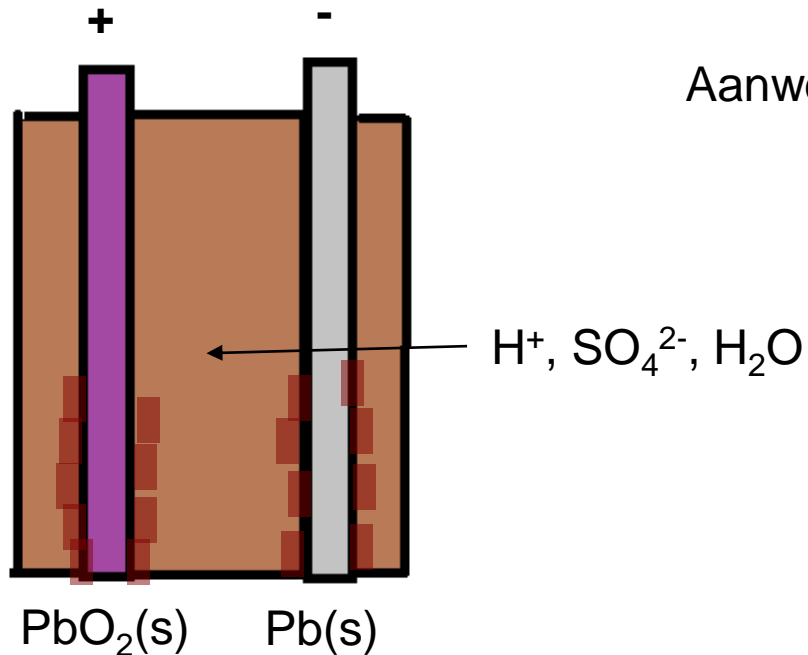


Methylester (biodiesel)

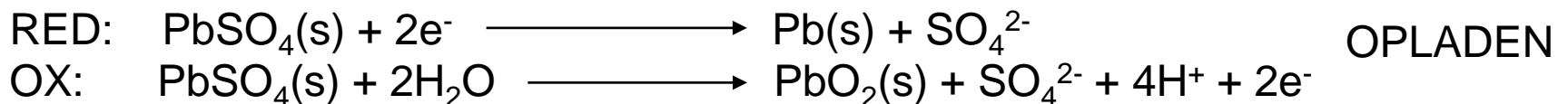
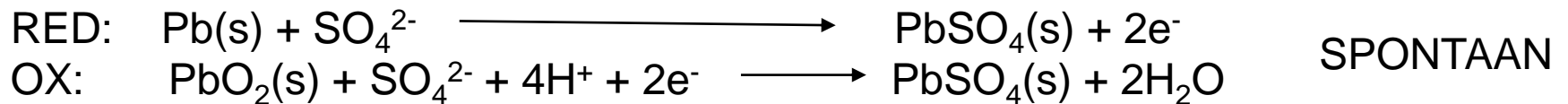
biodiesel

Binas 48: Halfreacties.

Reactie verloopt spontaan als de oxidatie halfreactie hoger staat dan de reductie halfreactie.

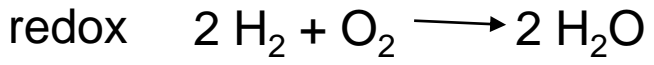
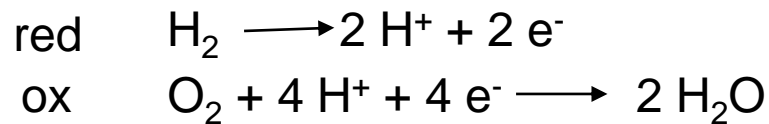
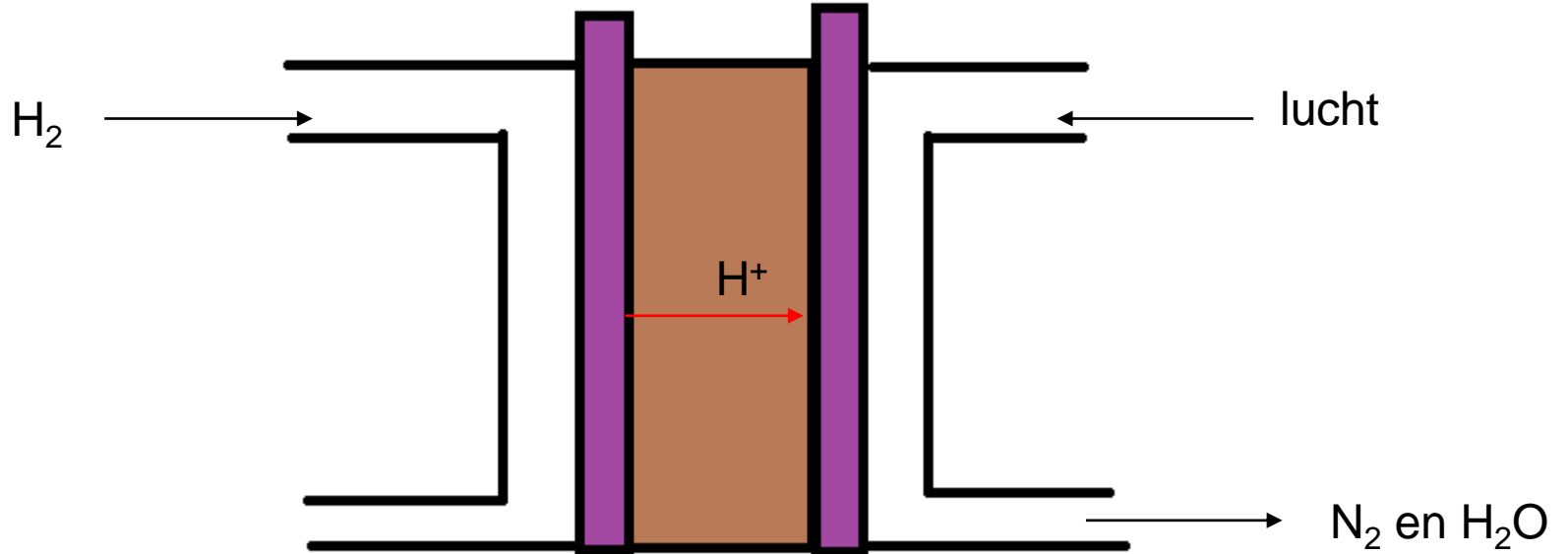


Aanwezig: H^+ , SO_4^{2-} , H_2O , Pb(s) , $\text{PbO}_2(\text{s})$

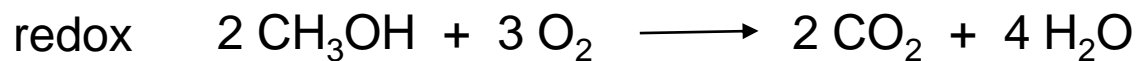
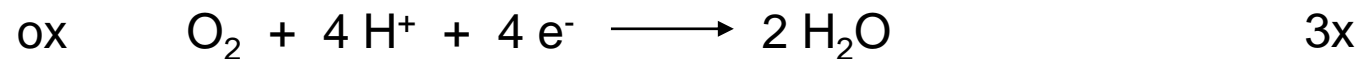
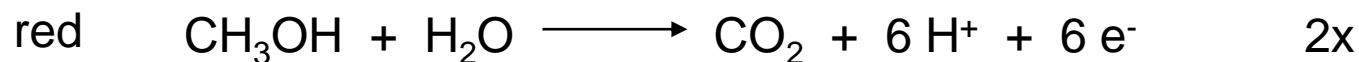
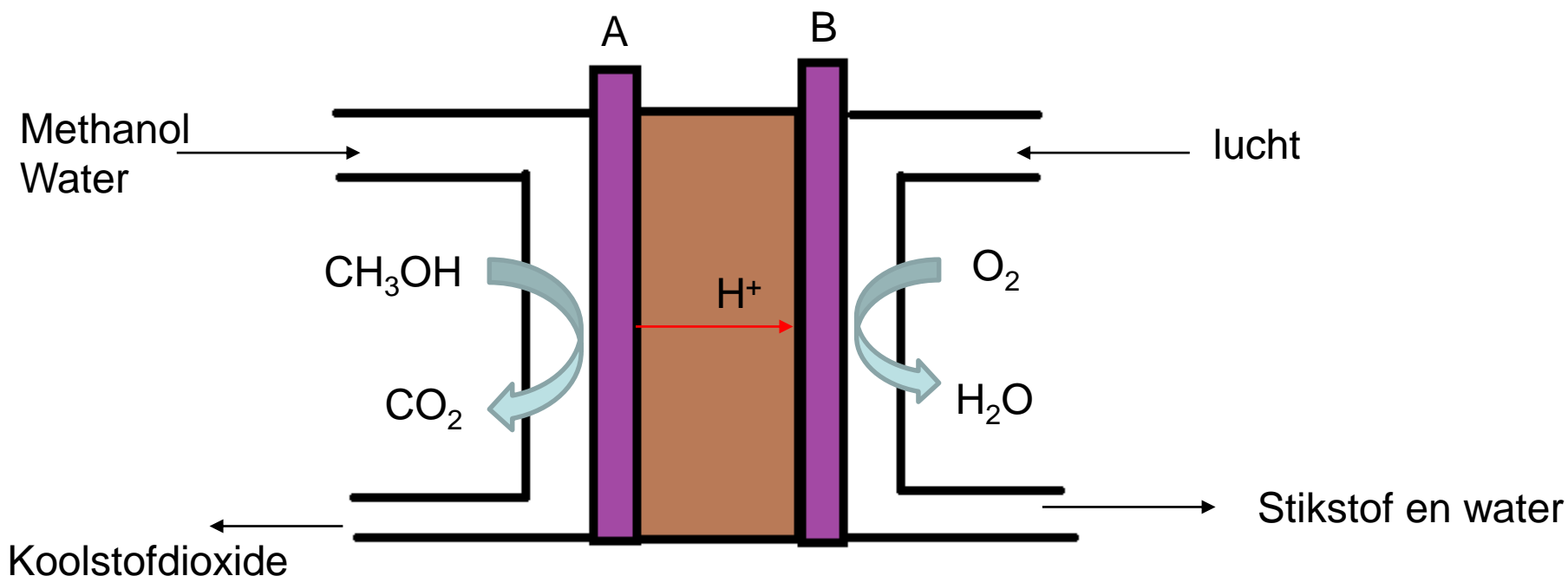


Brandstofcellen

- Waterstof-brandstofcel
- Methanol-brandstofcel (DMFC)

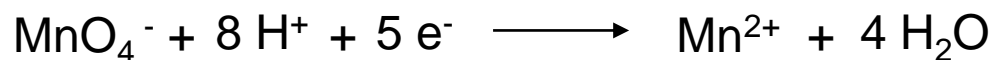


DMFC



REDOX

Halfreacties kloppend maken.



1. O kloppend maken met H_2O
2. H kloppend maken met H^+
3. Lading kloppend maken met e^-

