

Ionske reakcije

1. Naloga

S poskušanjem določi kateri ioni med sabo reagirajo in kateri ne. Te reakcije tudi zapiši.

2. Kratke teoretske osnove

Ionske reakcije potekajo med ioni v raztopini, ko nastane težko topna snov ali *oborina*; plinasta ali zelo lahko hlapna snov; slabo disocirana snov.

3. Kemikalije

- NaCl (natrijev klorid, natrijev I klorid, kuhinjska sol)
- NaI (natrijev jodid, natrijev I jodid)
- Na₂CO₃ (natrijev karbonat, natrijev I karbonat)
- NaSO₄ (natrijev sulfat, natrijev I sulfat)
- Na₃(PO₄)₂ (natrijev fosfat, natrijev I fosfat)
- KNO₃ (kalijev nitrat, kalijev I nitrat)
- Ca(NO₃)₂ (kalcijski nitrat, kalcijski II nitrat)
- Ba(NO₃)₂ (barijski nitrat, barijski II nitrat)
- Pb(NO₃)₂ (svinčev nitrat, svinčev II nitrat)
- Cu(NO₃)₂ (bakrov nitrat, bakrov II nitrat)
- AgNO₃ (srebrov nitrat, srebrov I nitrat)

4. Laboratorijski pribor

folija, kapalka (12X)

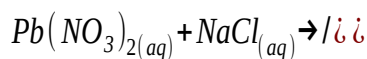
5. Navodila za delo

Na tabelo, ki smo jo dobili položimo folijo, na kateri bomo delali poizkuse. Ne bomo uporabljali epruvet, ker bi jih veliko potrebovali in jih je težko umiti. Po kvadratkih kapljamo tiste vodne raztopine, ki nam jih določa tabela. Ko s tem zaključimo pogledamo, katere reakcije so potekle. Pri tem si zapišemo barvo oborine, če je reakcija potekla. Če nismo prepričani, ali je reakcija potekla, pogledamo vodoravno, saj se tako bolje vidi če je raztopina motna.

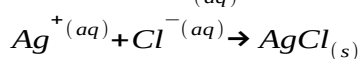
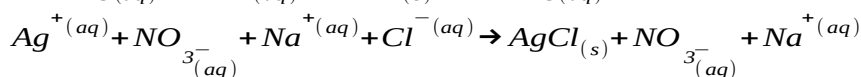
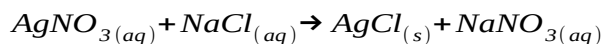
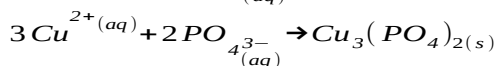
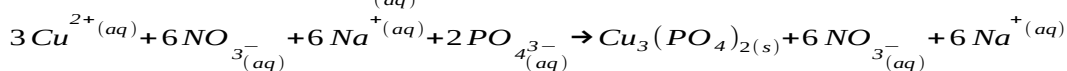
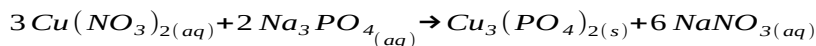
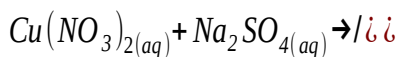
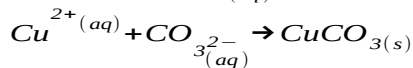
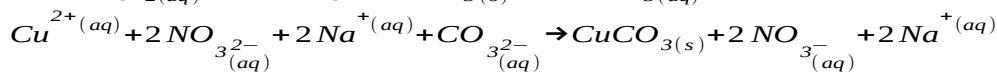
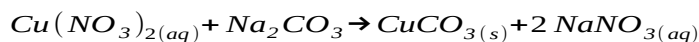
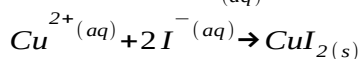
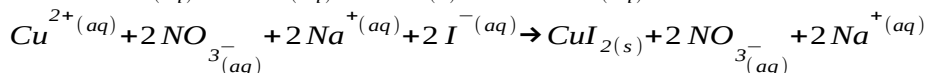
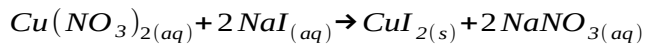
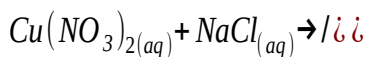
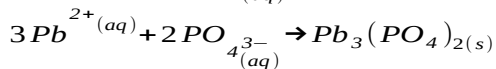
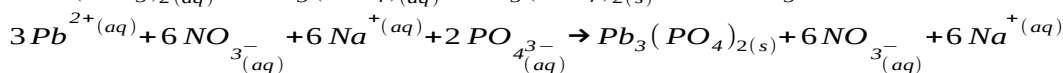
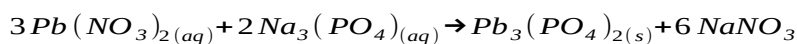
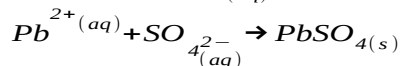
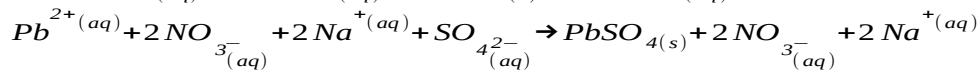
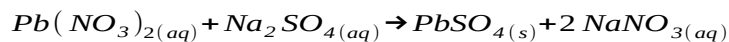
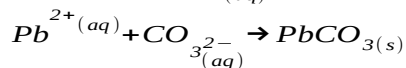
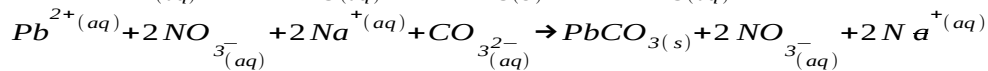
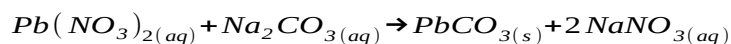
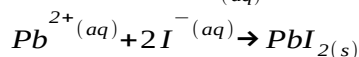
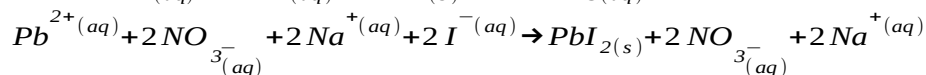
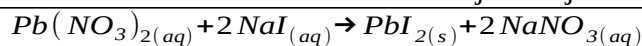
6. Skica aparature

7. Rezultati opazovanja

Vse reakcije potekajo le kot vodne raztopine:



Kemijske vaje – Ionske reakcije



Kemijske vaje – Ionske reakcije

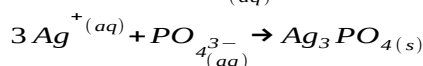
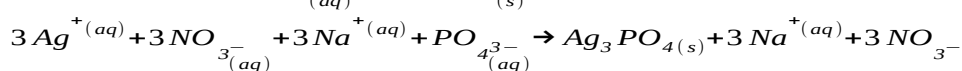
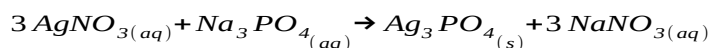
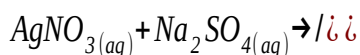
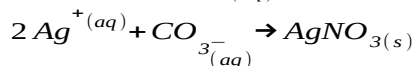
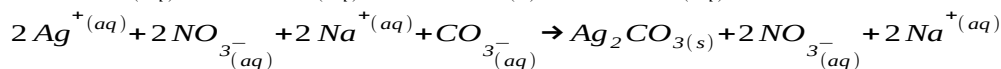
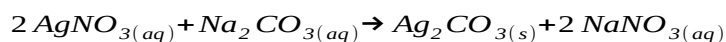
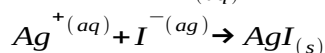
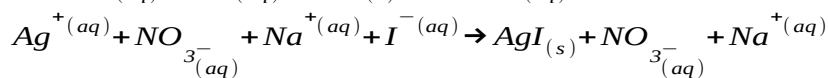
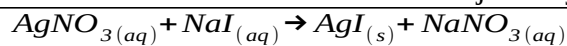
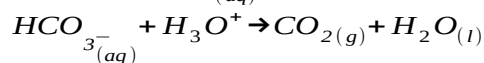
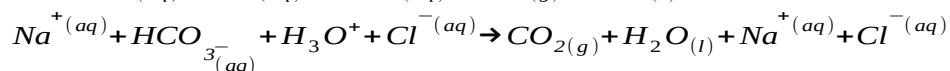
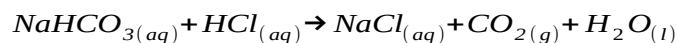


Tabela: Barva oborine, če je reakcija potekla

Raztopina	Cl^{-}	I^{-}	$CO_{3^{2-}}$	$SO_{4^{2-}}$	$PO_{4^{3-}}$
K^{+}	/	/	/	/	/
Ca^{2+}	/	/	bela	/	bela
Ba^{2+}	/	/	bela	bela	bela
Pb^{2+}	/	rumena	bela	bela	bela
Cu^{2+}	/	oranžno rjava	modra	/	modra
Ag^{+}	belo	rumena	rumena	/	rumena
????	/	/	bela	bela	bela

Neznan iona je Ba^{2+} - ali raztopina $Ba(NO_3)_2$

c) plin ali lahko hlapna snov (samo teorija, ni bilo v vaji)



8. Varnost pri delu

Pri vaji smo uporabljali predpasnik in zaščitna očala.