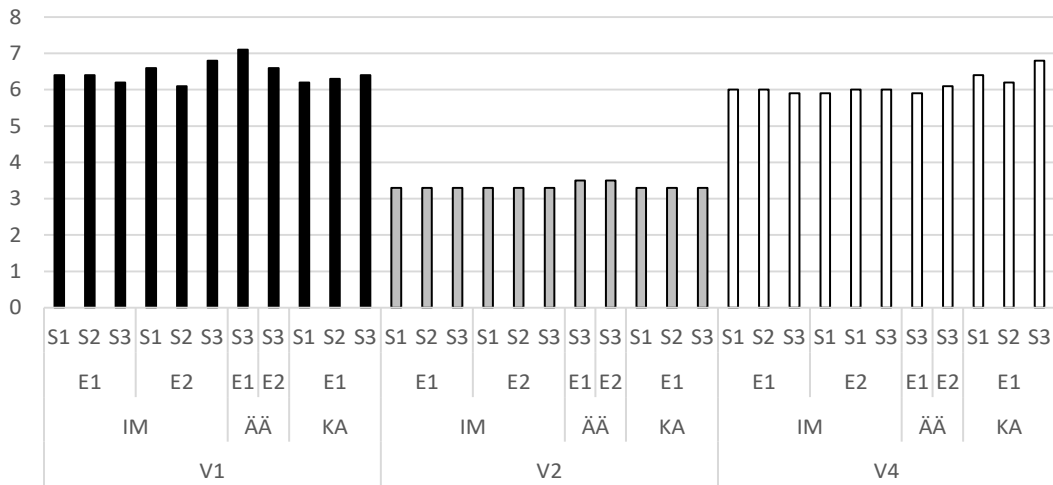


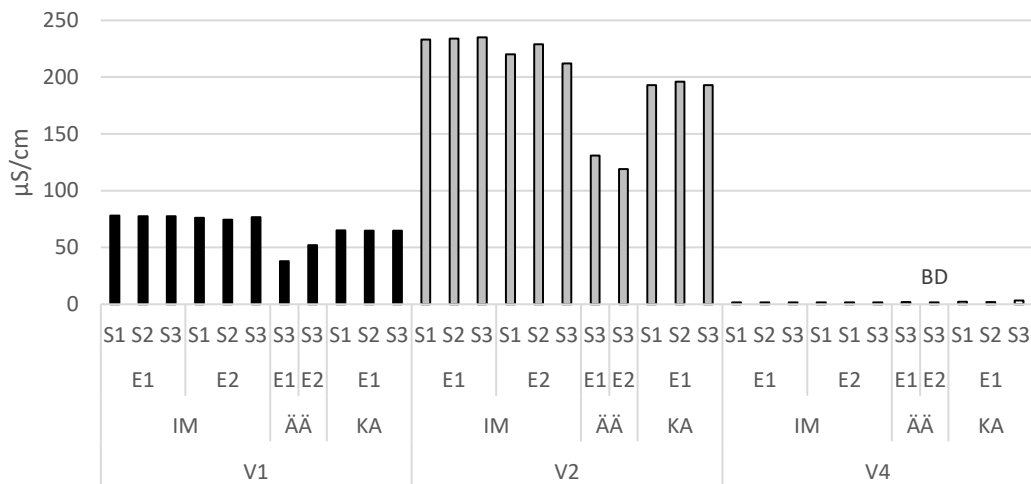
Kuva A2.1

pH



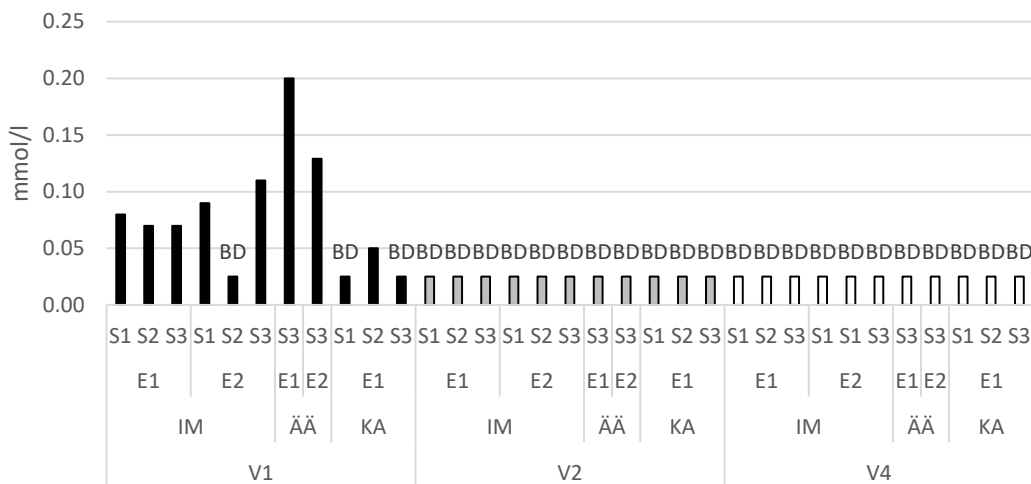
Kuva A2.2

Sähkönjohtavuus 25 C



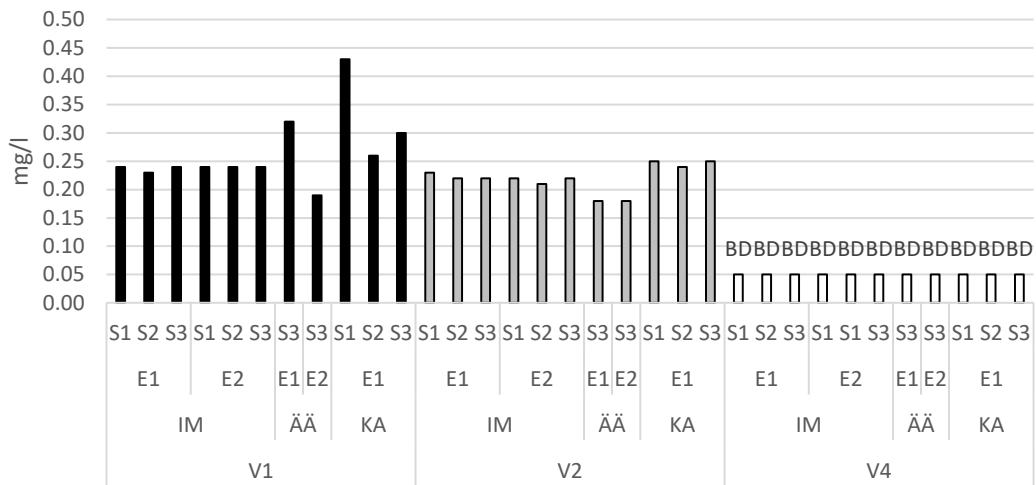
Kuva A2.3

Alkaliteetti



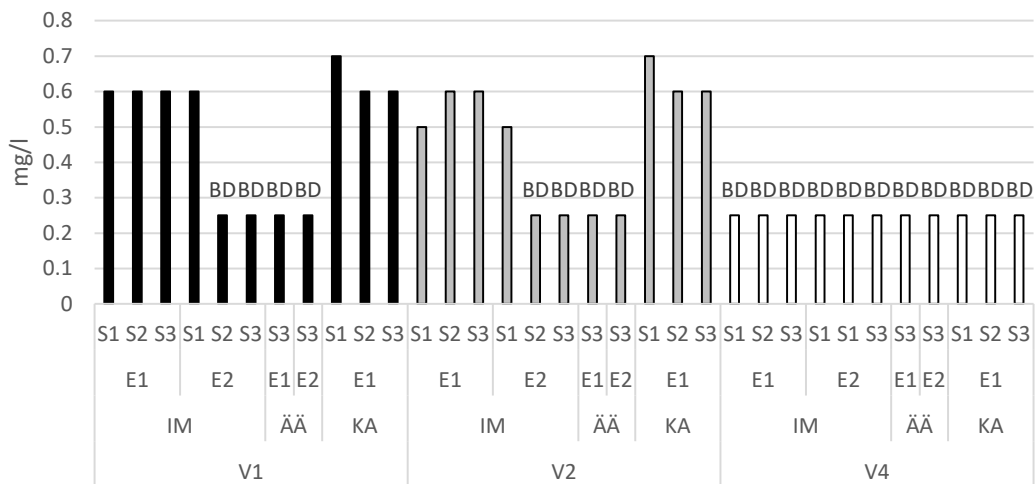
Kuva A2.4

Kokonaistyyppi, N



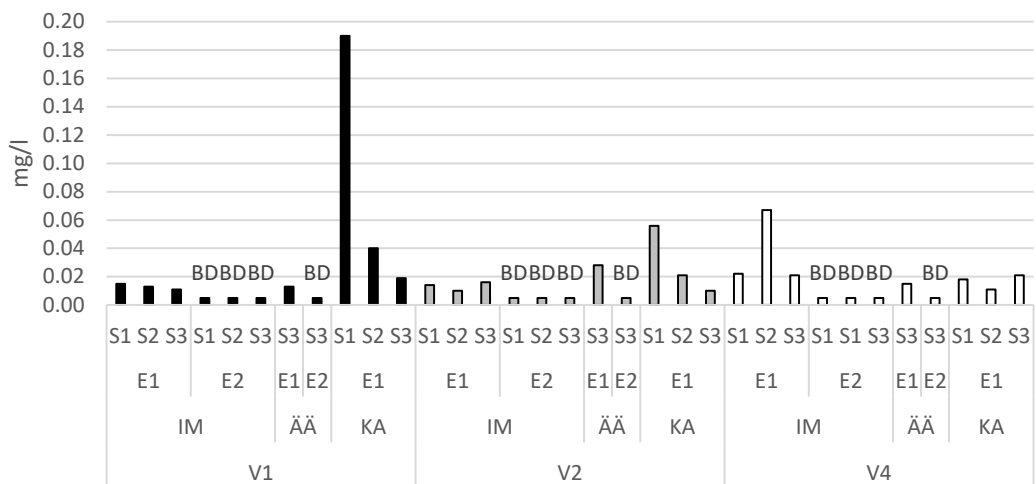
Kuva A2.5

Nitraatti, NO3



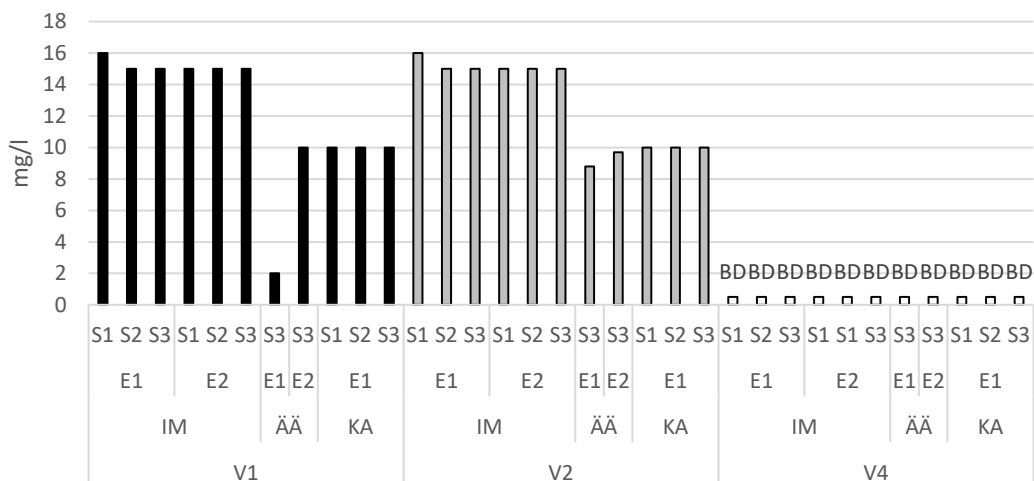
Kuva A2.6

Ammonium, NH4



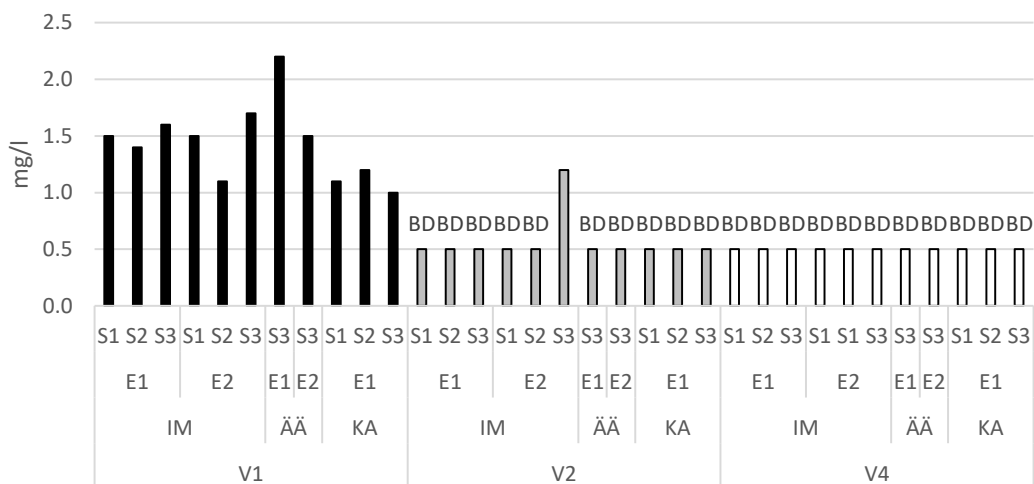
Kuva A2.7

Kloridi, Cl



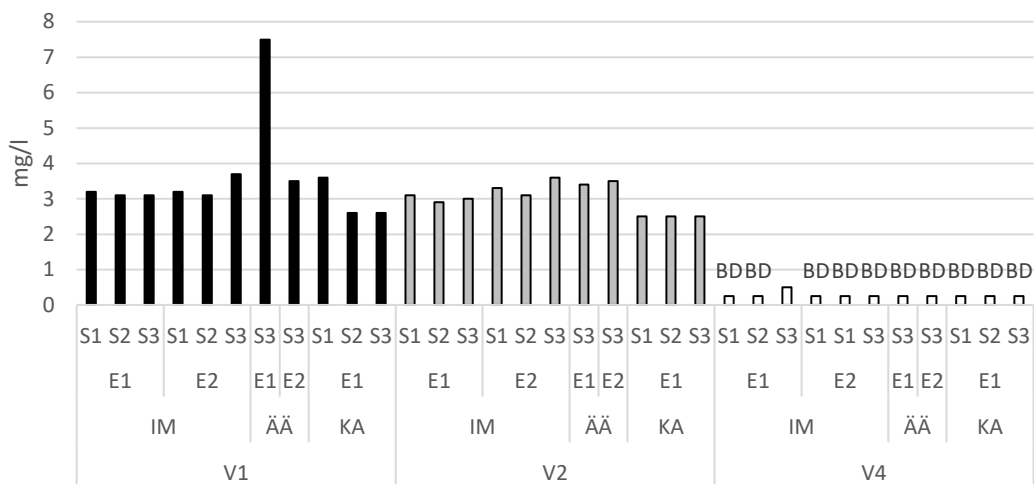
Kuva A2.8

Epäorgaanisen hiilen kokonaismäärä, TIC



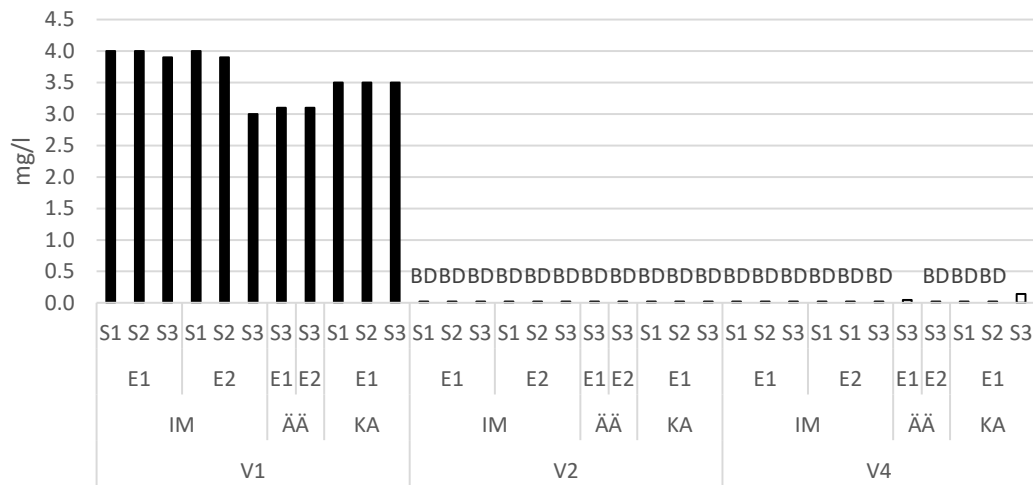
Kuva A2.9

Orgaanisen hiilen kokonaismäärä, TOC



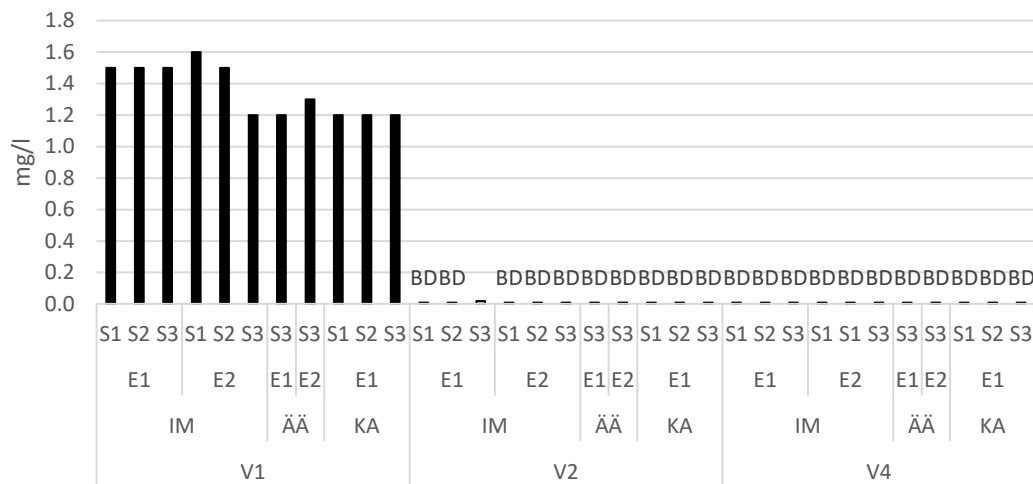
Kuva A2.10

Kalsium, Ca



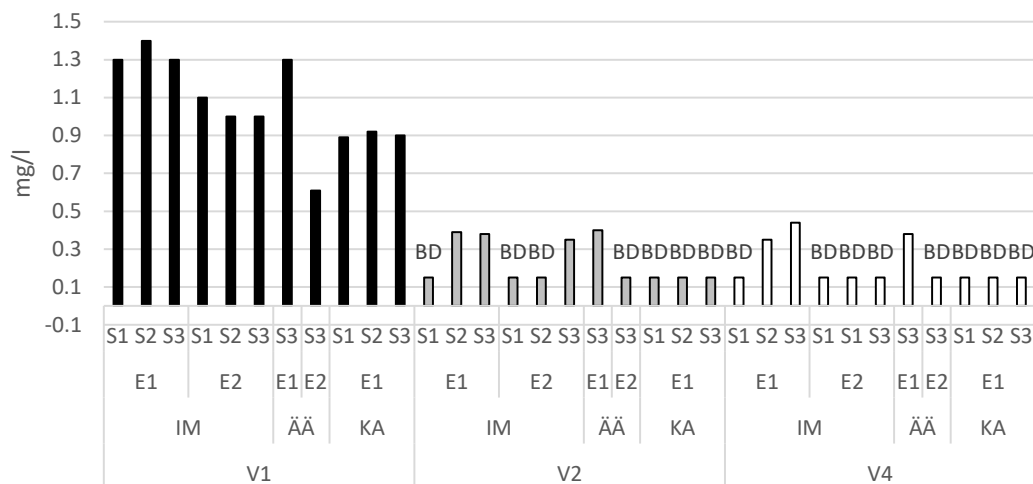
Kuva A2.11

Magnesium, Mg



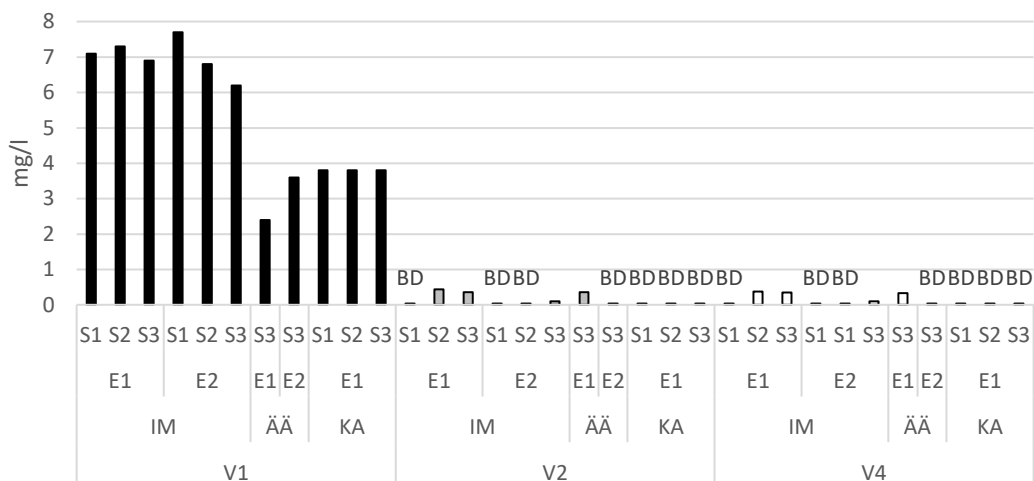
Kuva A2.12

Kalium, K



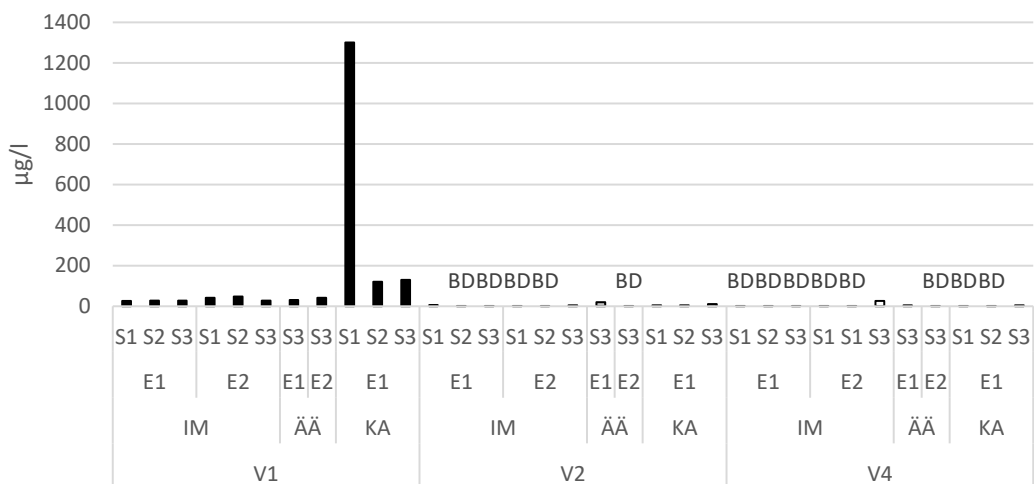
Kuva A2.13

Natrium, Na



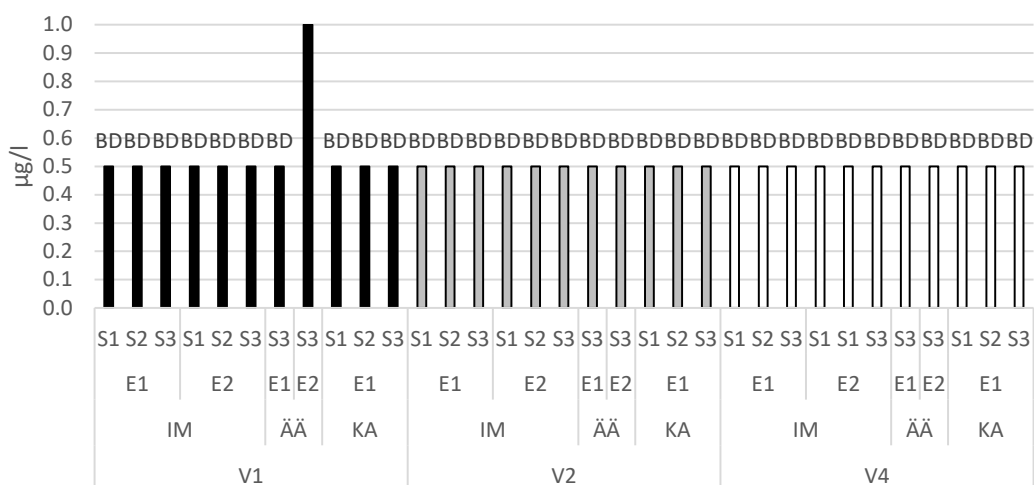
Kuva A2.14

Alumiini, Al



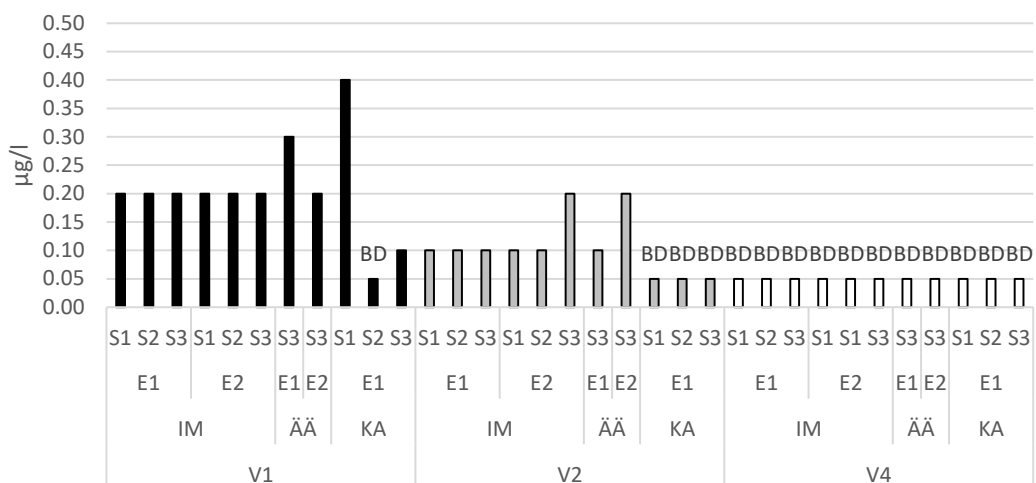
Kuva A2.15

Antimoni, Sb



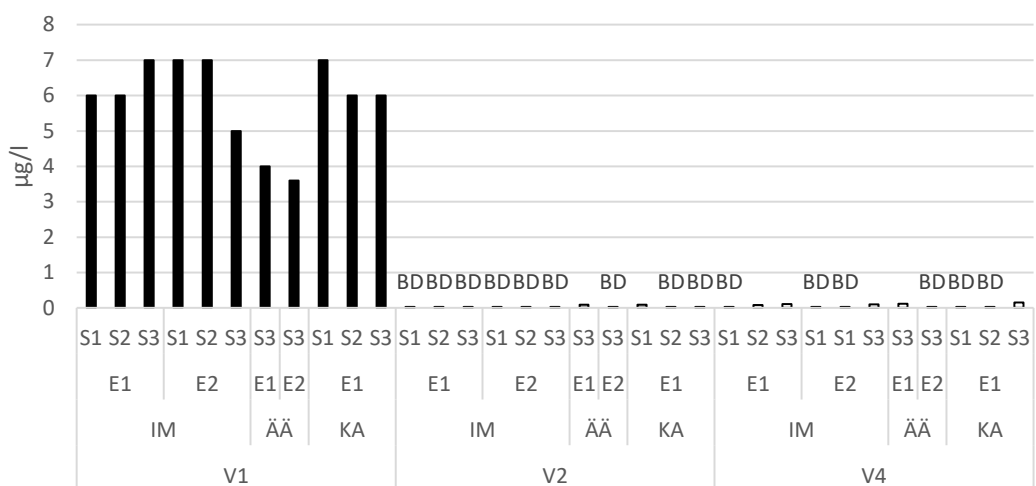
Kuva A2.16

Arseeni, As



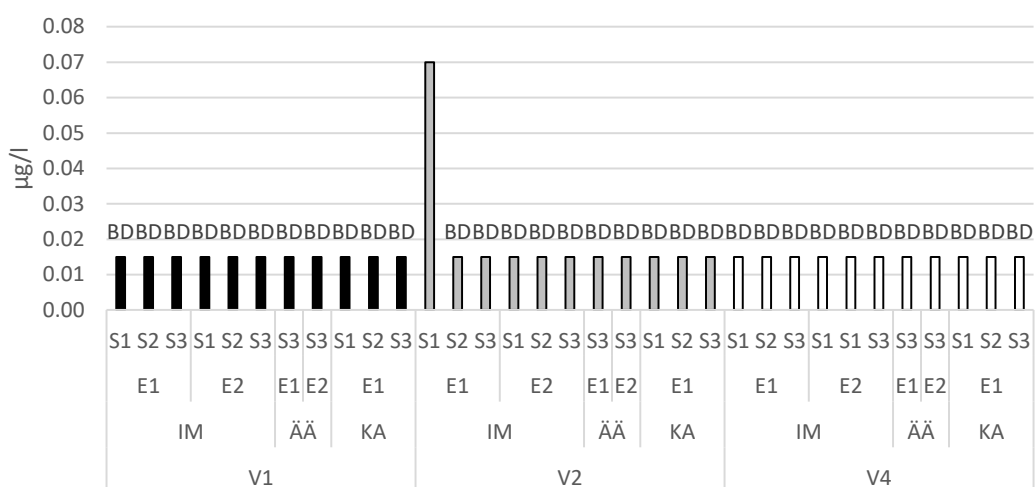
Kuva A2.17

Barium, Ba



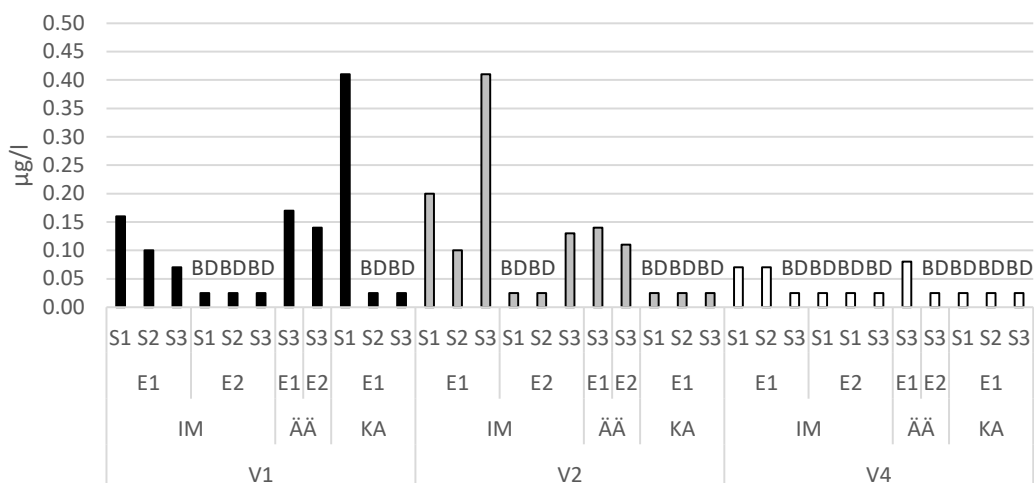
Kuva A2.18

Koboltti, Co



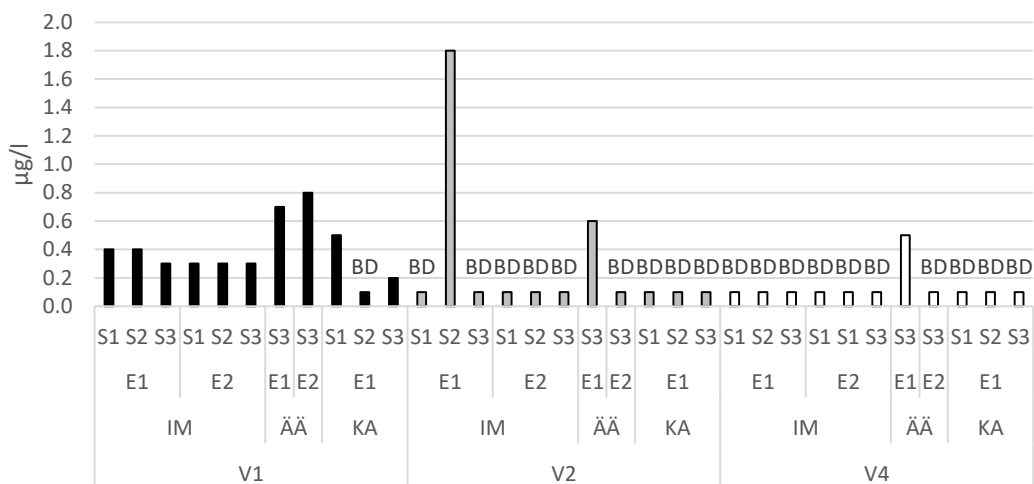
Kuva A2.19

Kromi, Cr



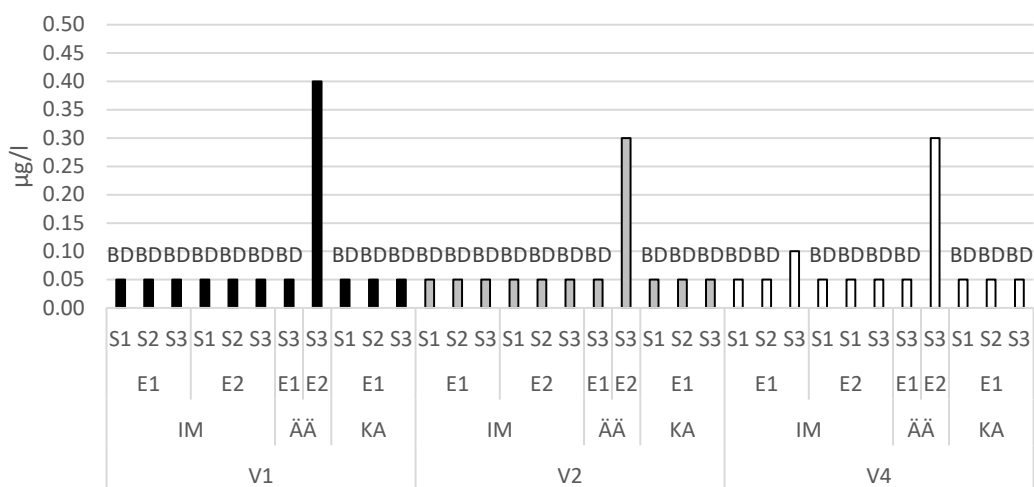
Kuva A2.20

Kupari, Cu



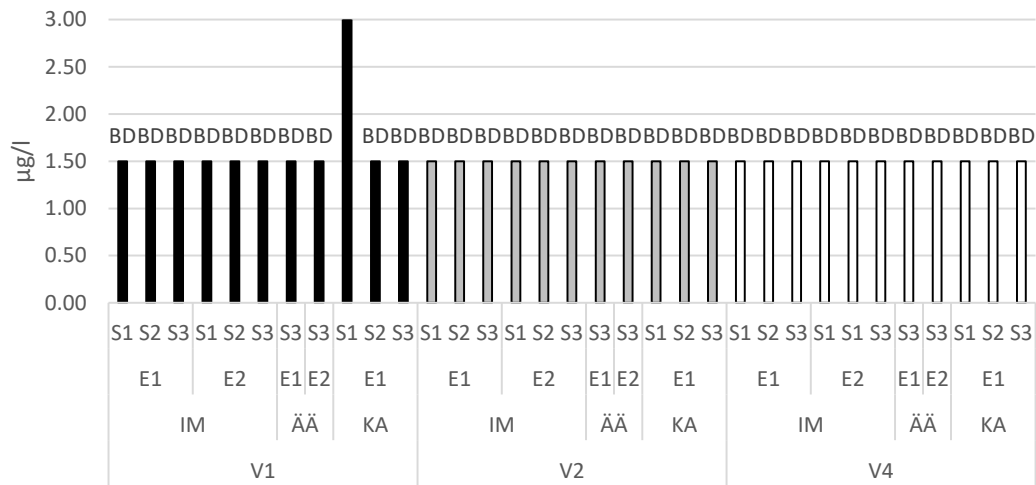
Kuva A2.21

Lyijy, Pb



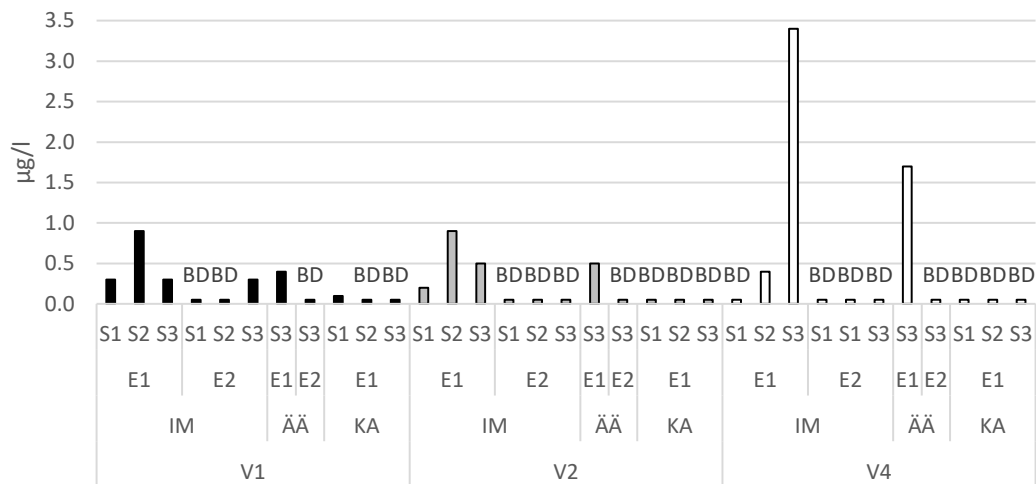
Kuva A2.22

Mangaani, Mn



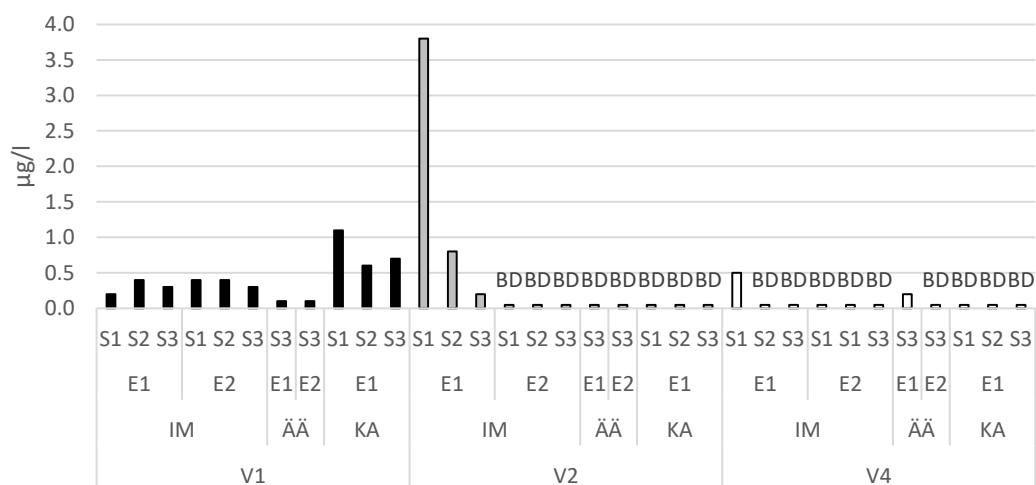
Kuva A2.23

Molybdeen, Mo



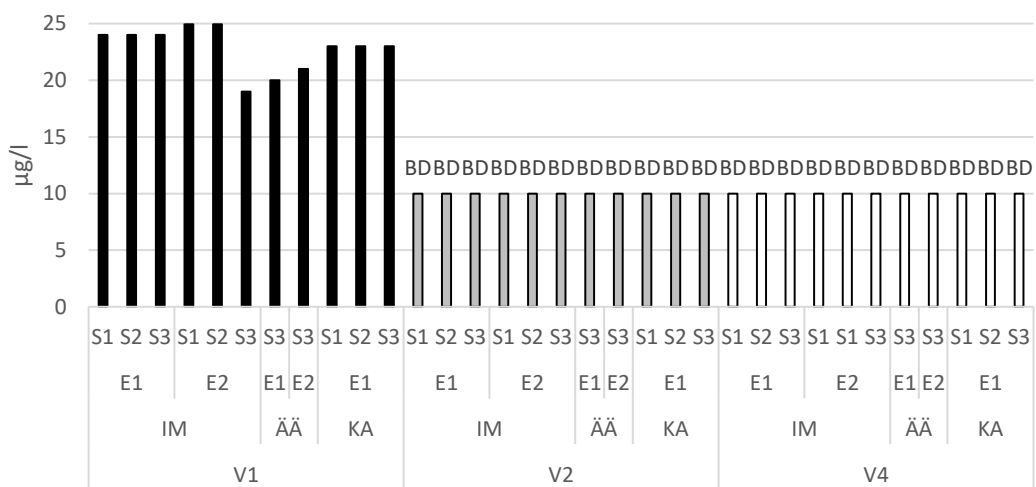
Kuva A2.24

Nikkeli, Ni



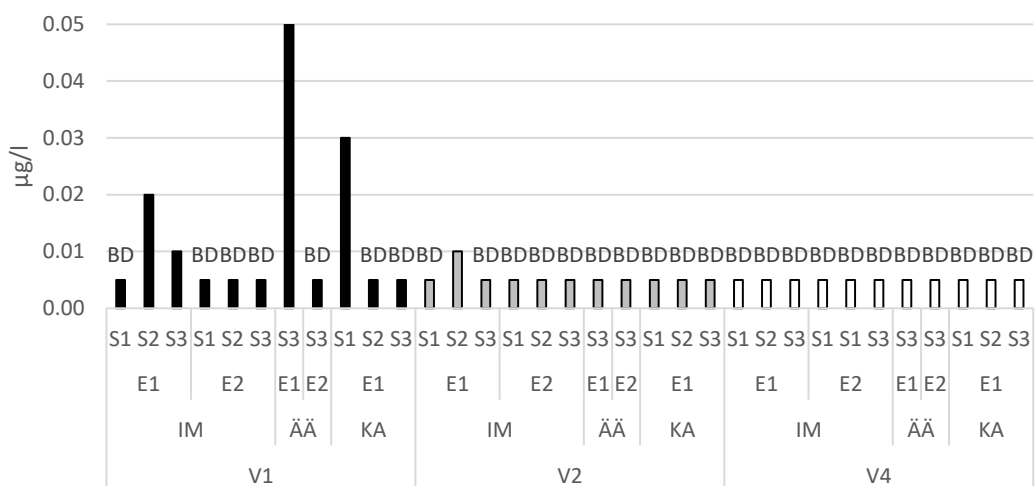
Kuva A2.28

Strontium, Sr

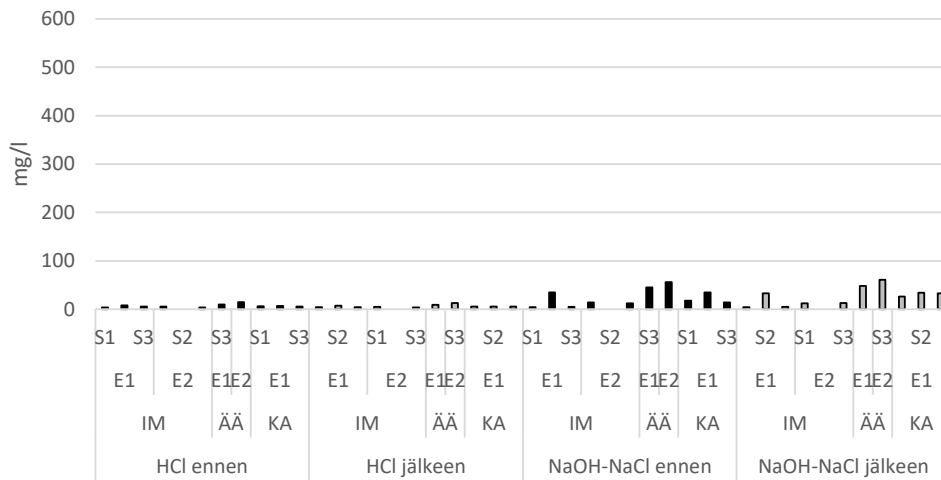


Kuva A2.29

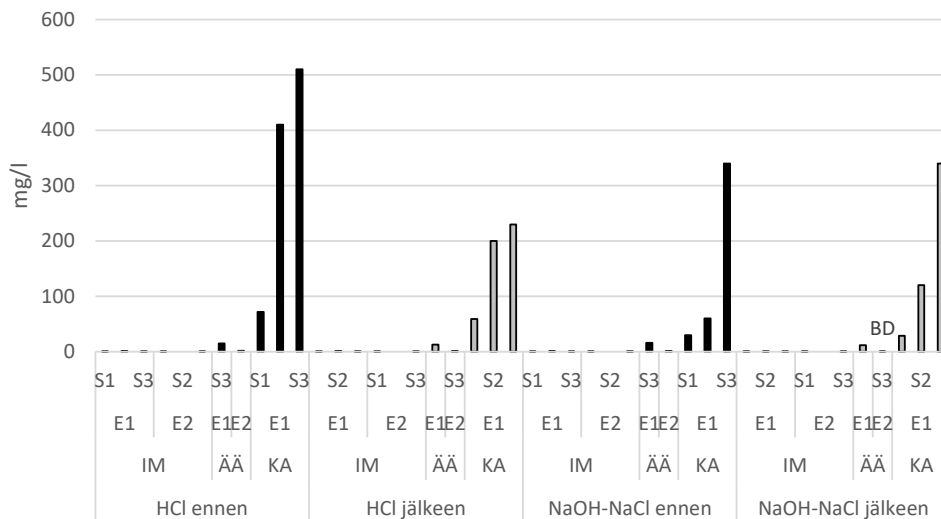
Uraani, U



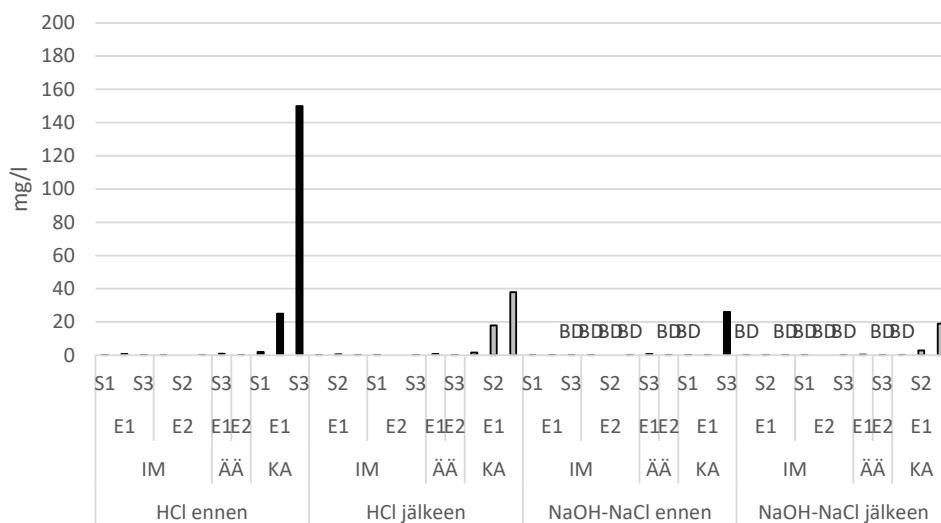
Orgaanisen hiilen kokonaismäärä, TOC
kationinvaihtohartseista



Kalsium, Ca, kationinvaihtohartseista

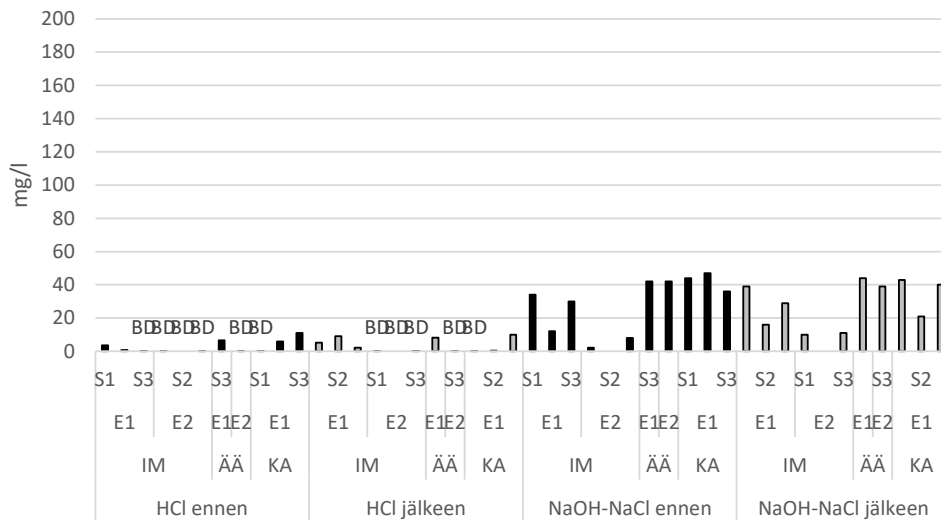


Magnesium, Mg, kationinvaihtohartseista



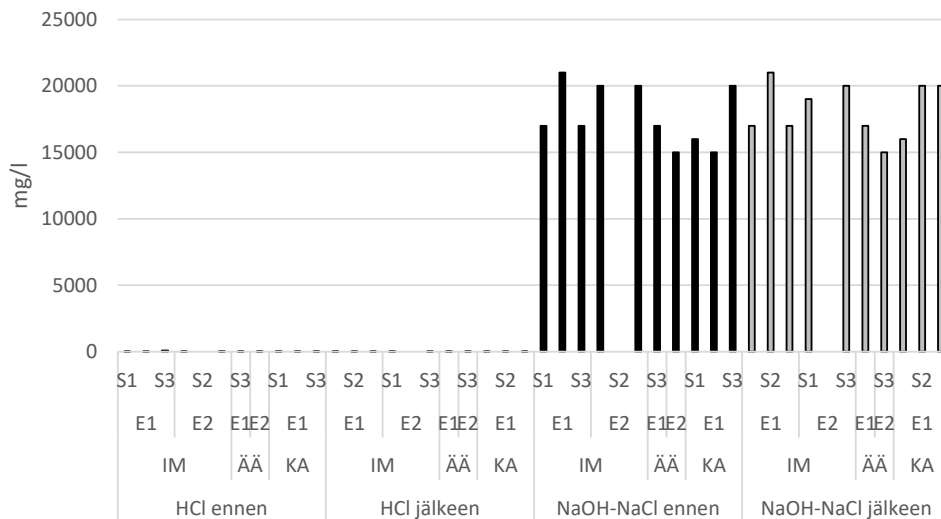
Kuva A3.4

Kalium, K, kationinvaihtohartseista



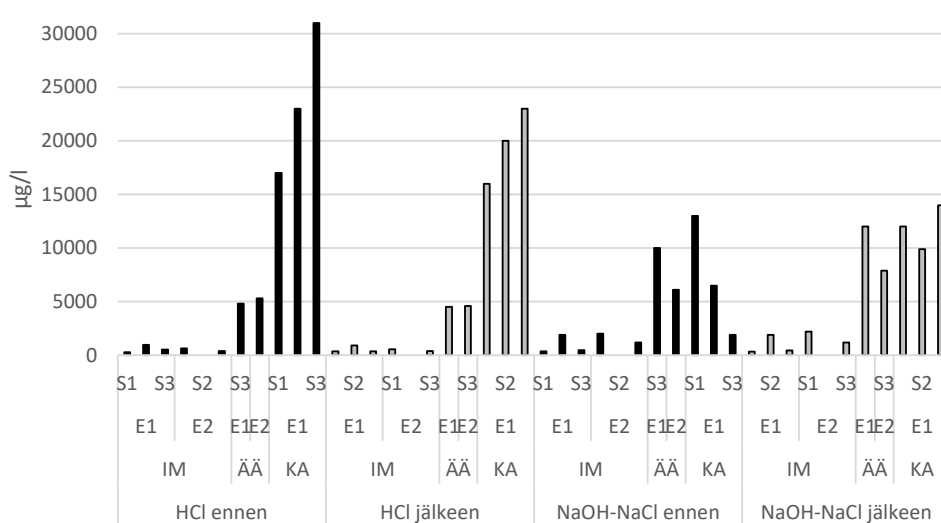
Kuva A3.5

Natrium, Na, kationinvaihtohartseista



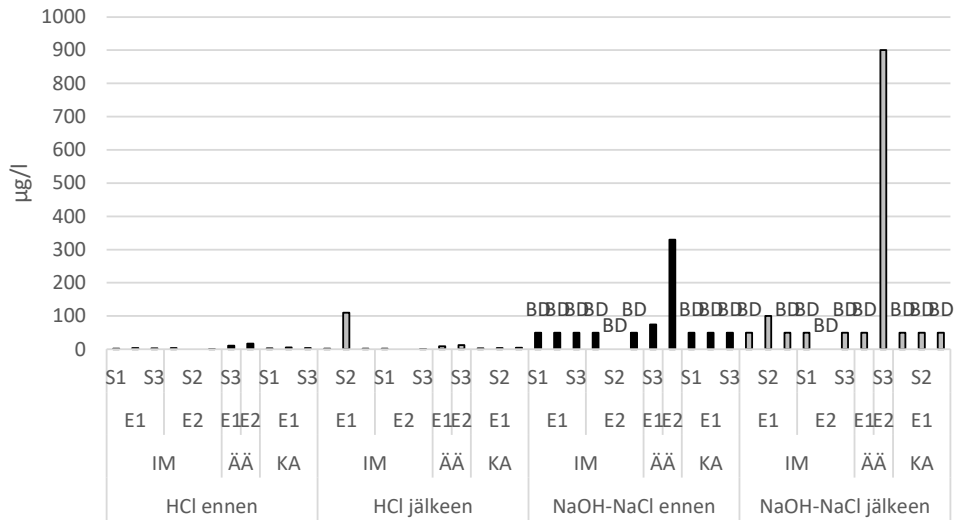
Kuva A3.6

Alumiini, Al, kationinvaihtohartseista



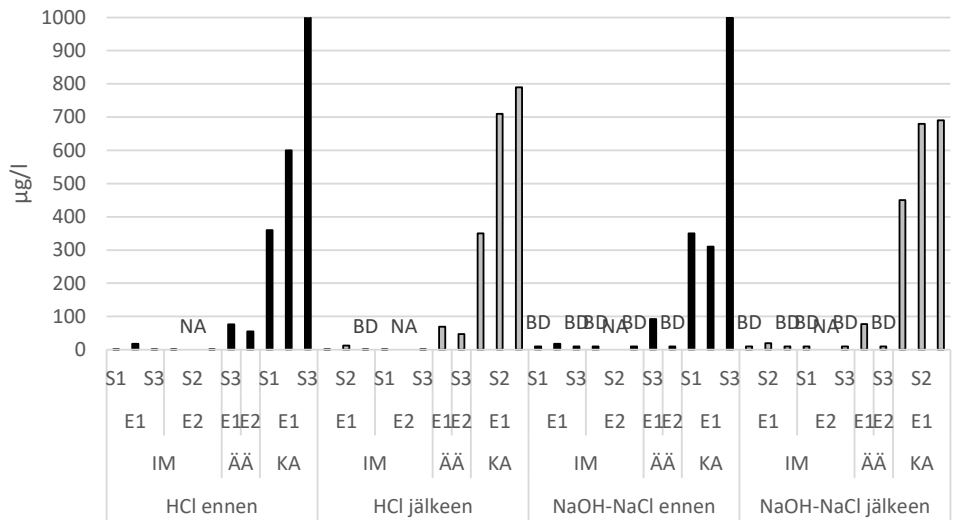
Kuva A3.7

Arseeni, As, kationinvaihtohartseista



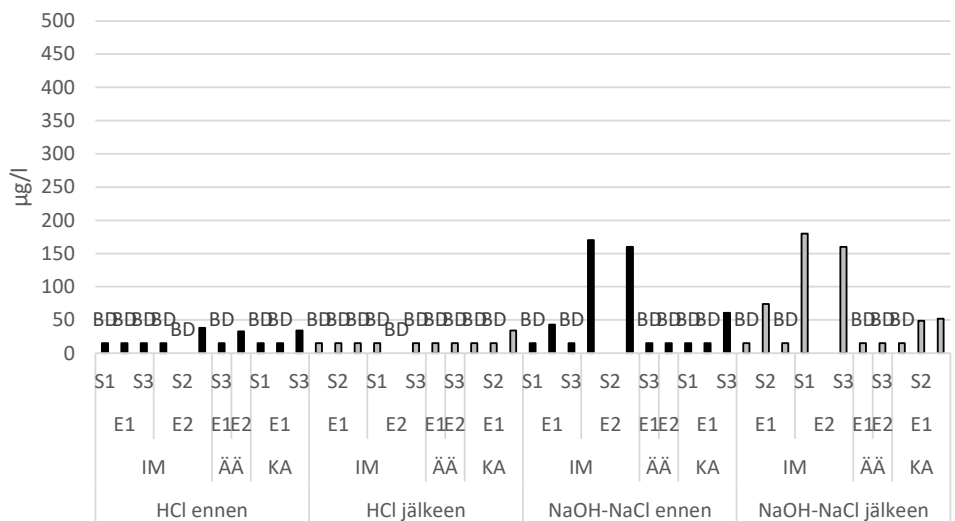
Kuva A3.8

Barium, Ba, kationinvaihtohartseista



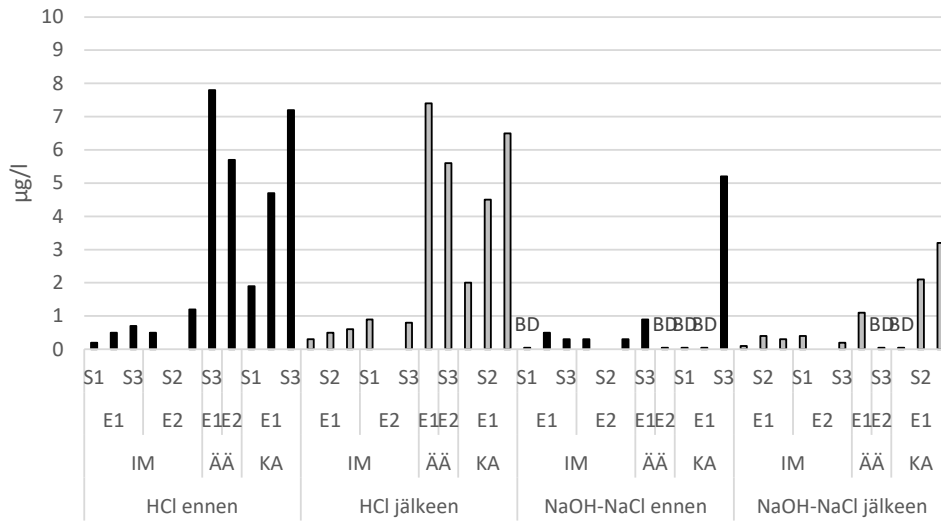
Kuva A3.9

Boori, B, kationinvaihtohartseista



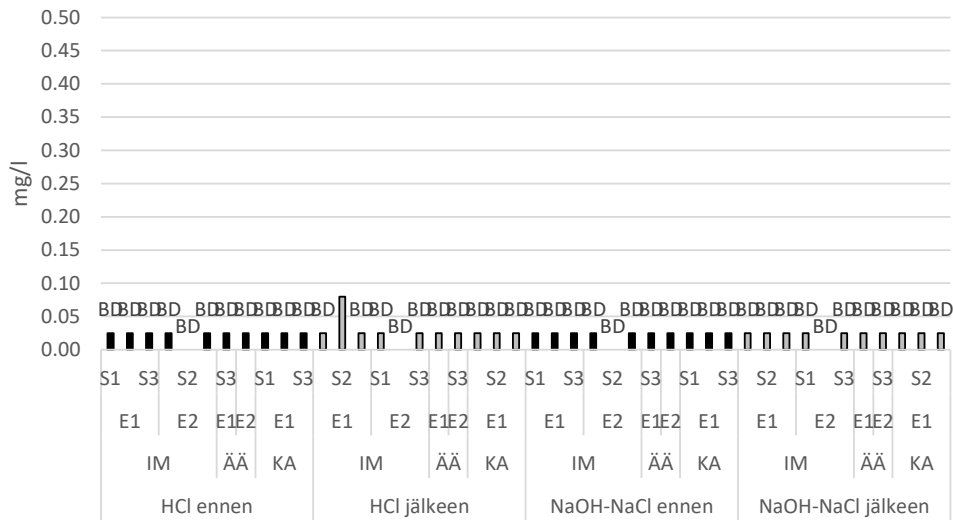
Kuva A3.10

Elohopea, Hg, kationinvaihtohartseista



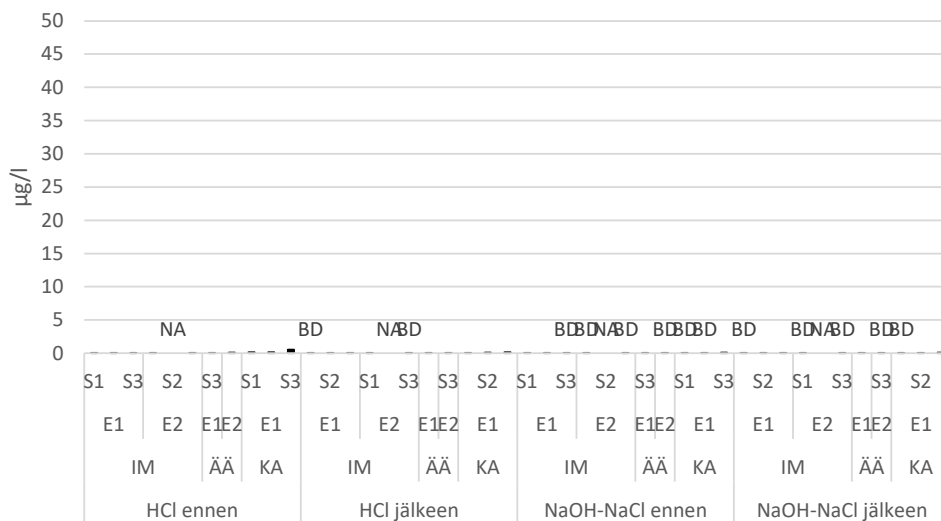
Kuva A3.11

Fosfori, P, kationinvaihtohartseista



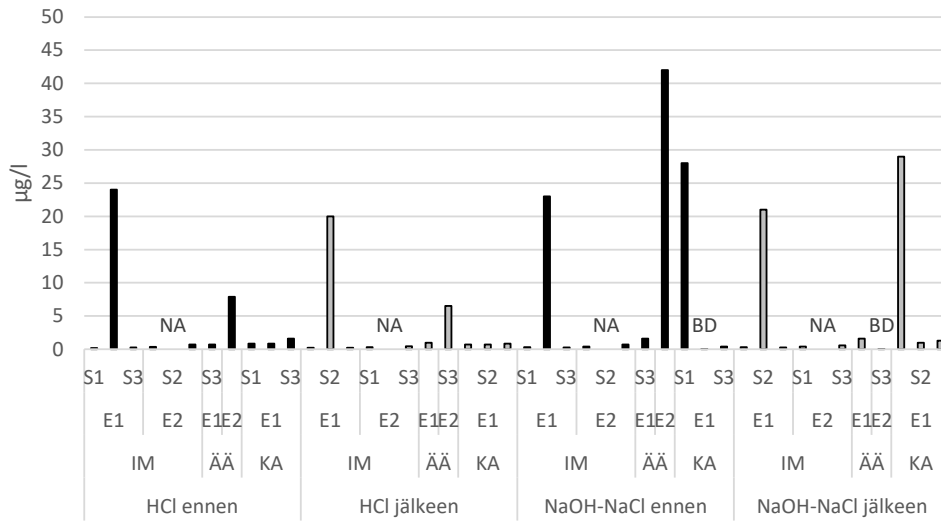
Kuva A3.12

Kadmium, Cd, kationinvaihtohartseista



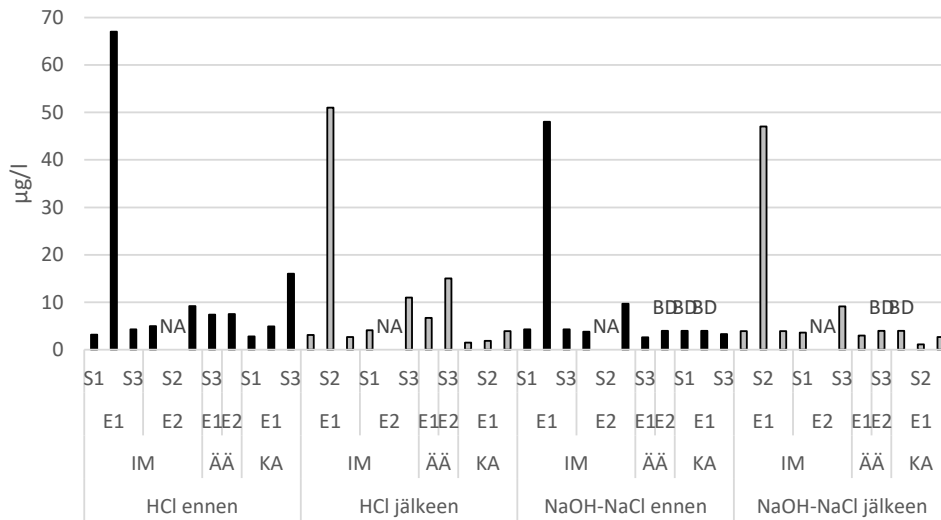
Kuva A3.13

Koboltti, Co, kationinvaihtohartseista



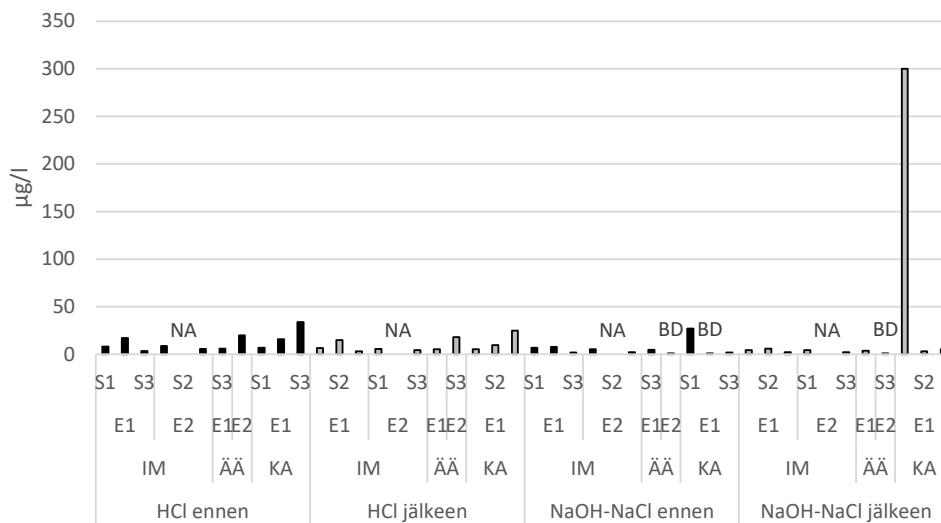
Kuva A3.14

Kromi, Cr, kationinvaihtohartseista



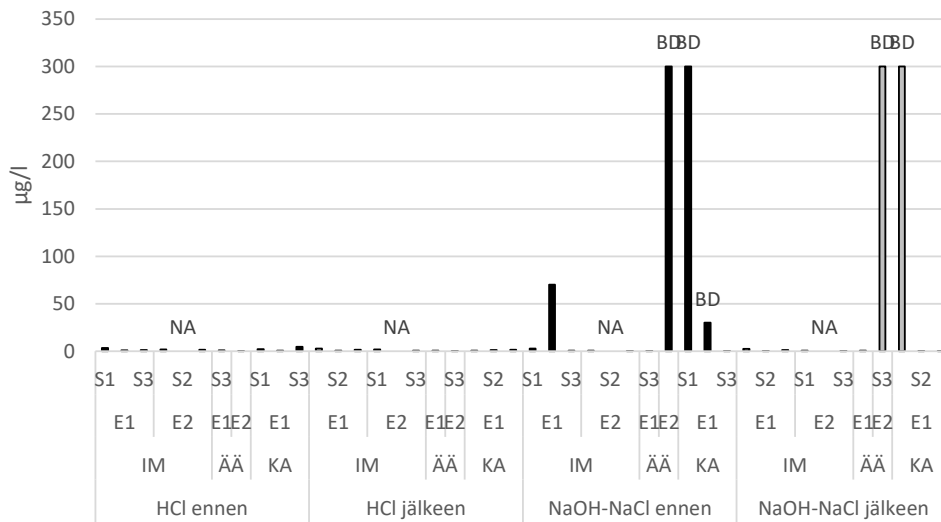
Kuva A3.15

Kupari, Cu, kationinvaihtohartseista



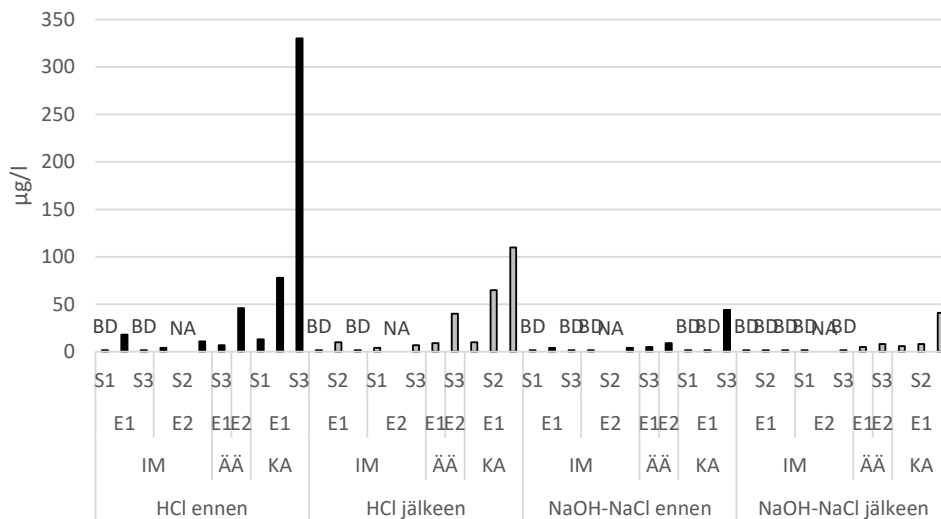
Kuva A3.16

Lyijy, Pb, kationinvaihtohartseista



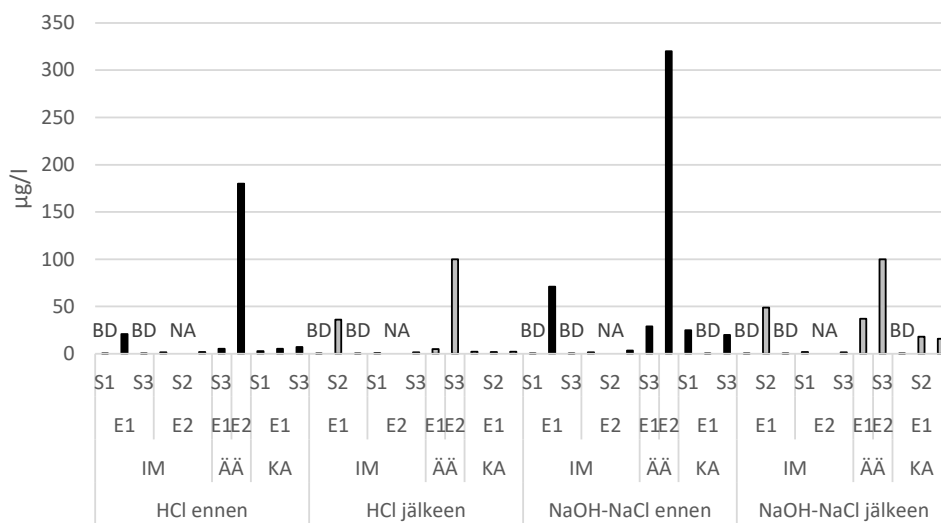
Kuva A3.17

Mangaani, Mn, kationinvaihtohartseista



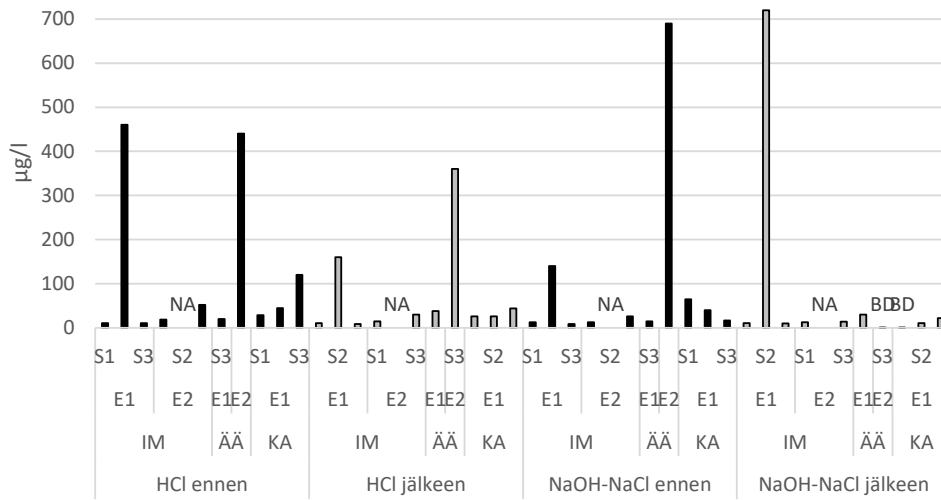
Kuva A3.18

Molybdeeni, Mo, kationinvaihtohartseista



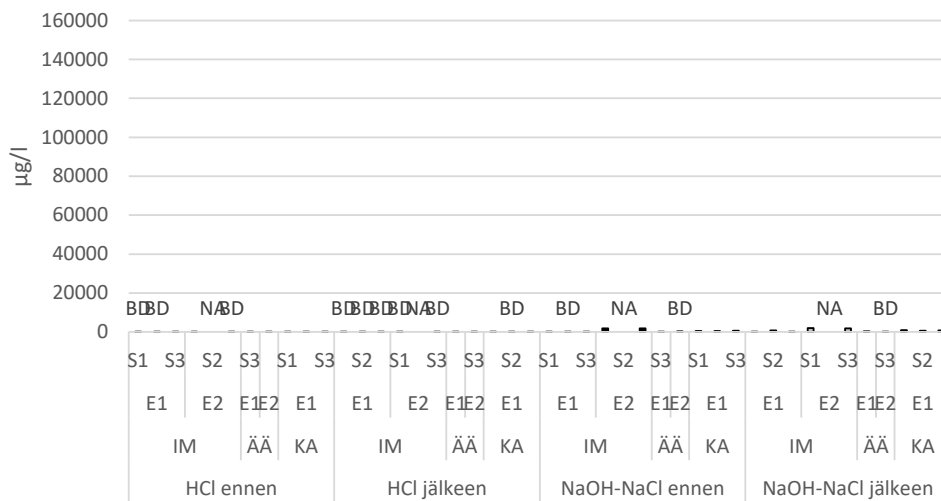
Kuva A3.19

Nikkeli, Ni, kationinvaihtohartseista



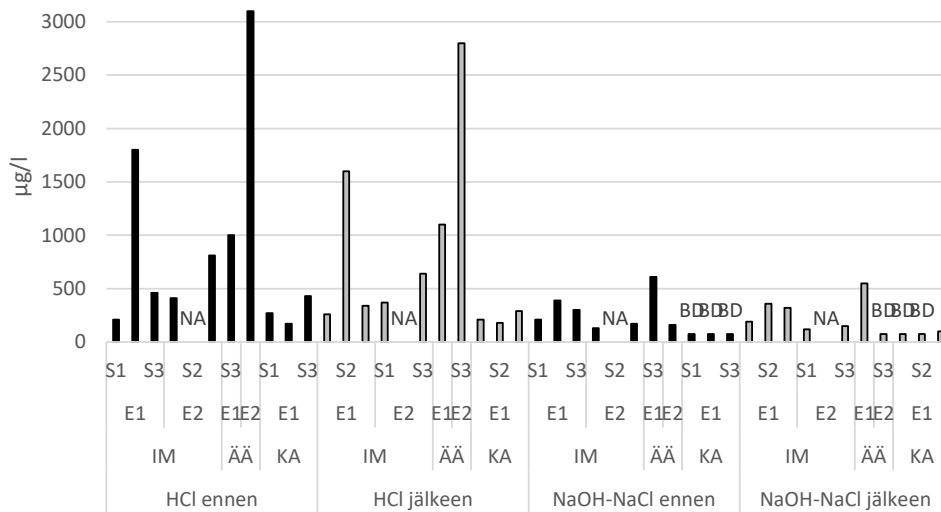
Kuva A3.20

Pii, Si, kationinvaihtohartseista



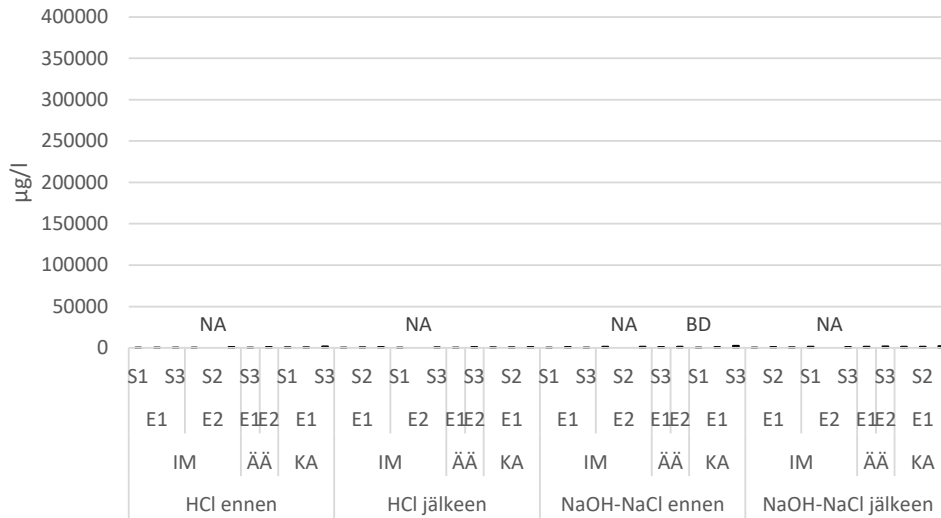
Kuva A3.21

Rauta, Fe, kationinvaihtohartseista



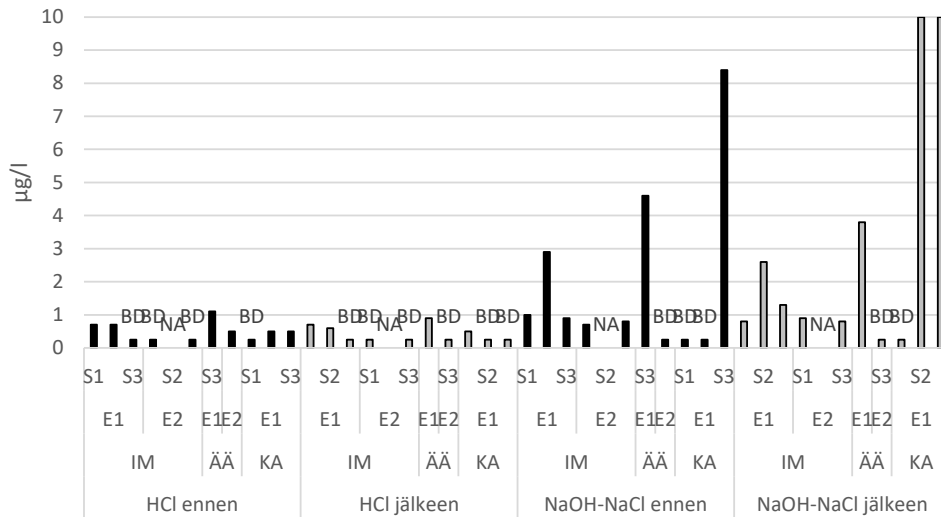
Kuva A3.22

Rikki, S, kationinvaihtohartseista



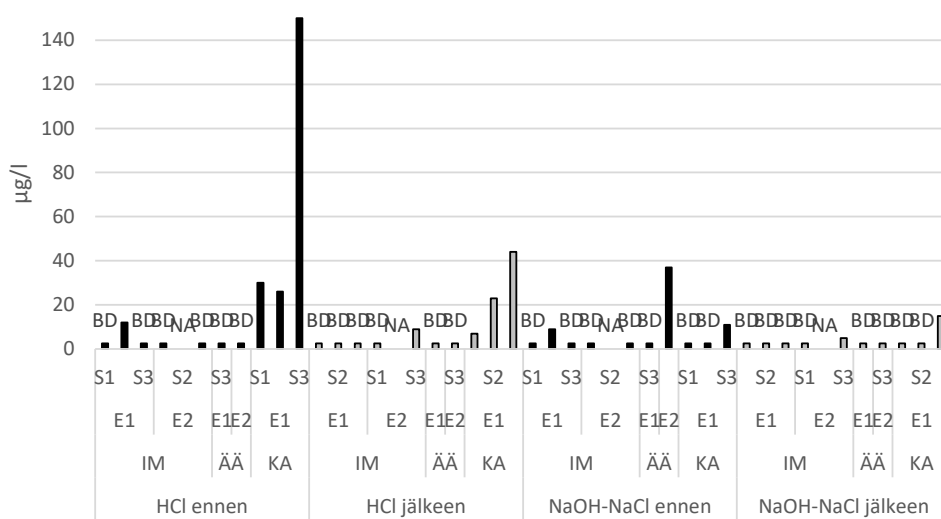
Kuva A3.23

Seleeni, Se, kationinvaihtohartseista



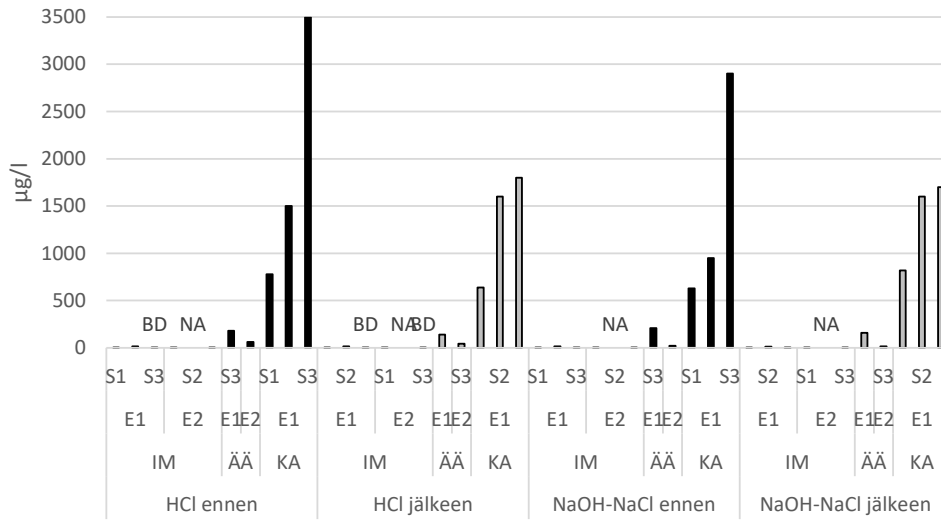
Kuva A3.24

Sinkki, Zn, kationinvaihtohartseista



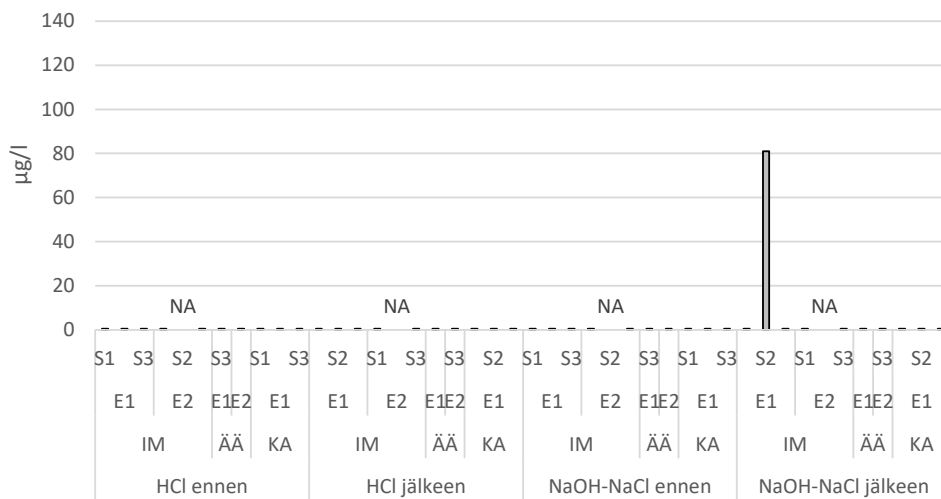
Kuva A3.25

Strontium, Sr, kationinvaihtohartseista



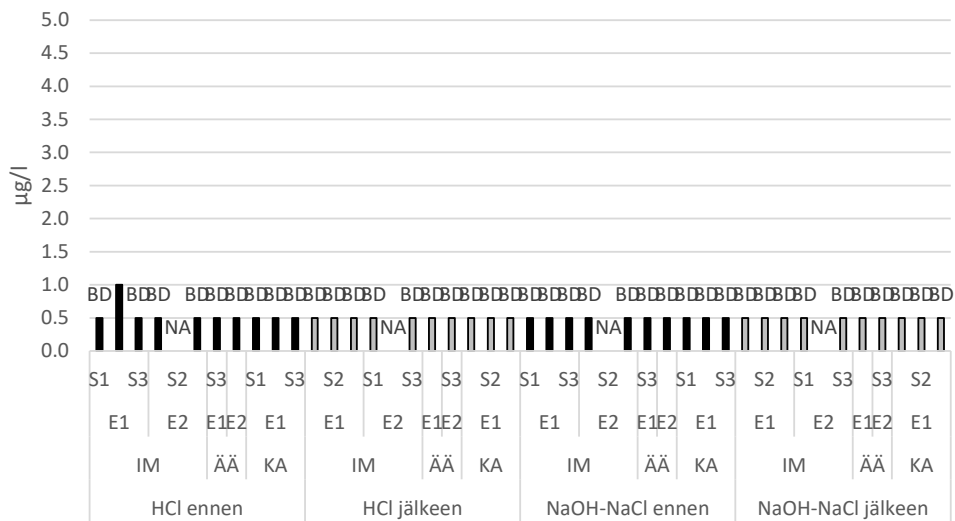
Kuva A3.26

Tallium, Tl, kationinvaihtohartseista



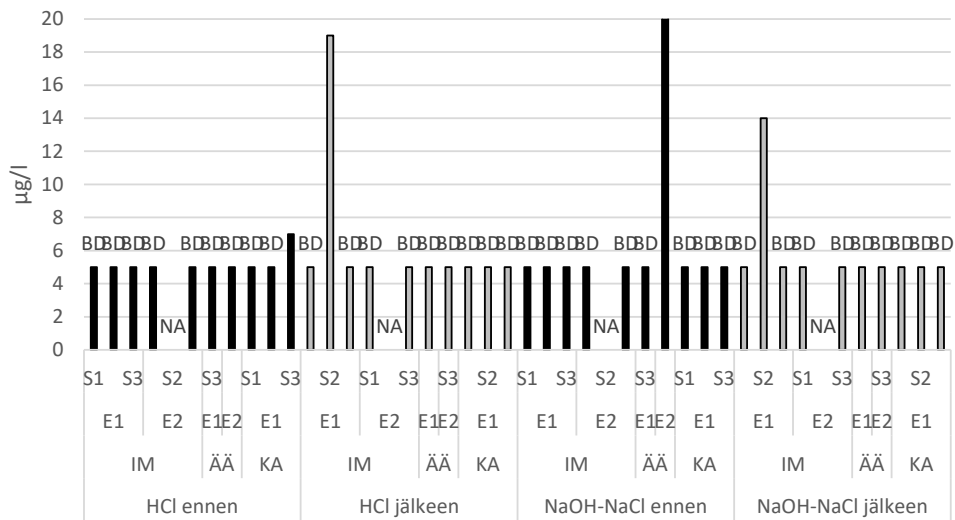
Kuva A3.27

Tina, Sn, kationinvaihtohartseista



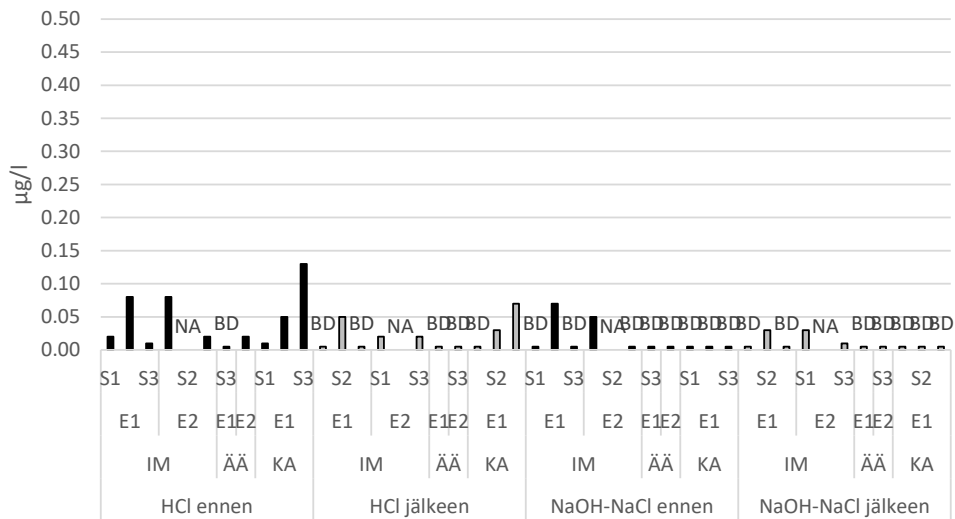
Kuva A3.28

Titaani, Ti kationinvaihtohartseista



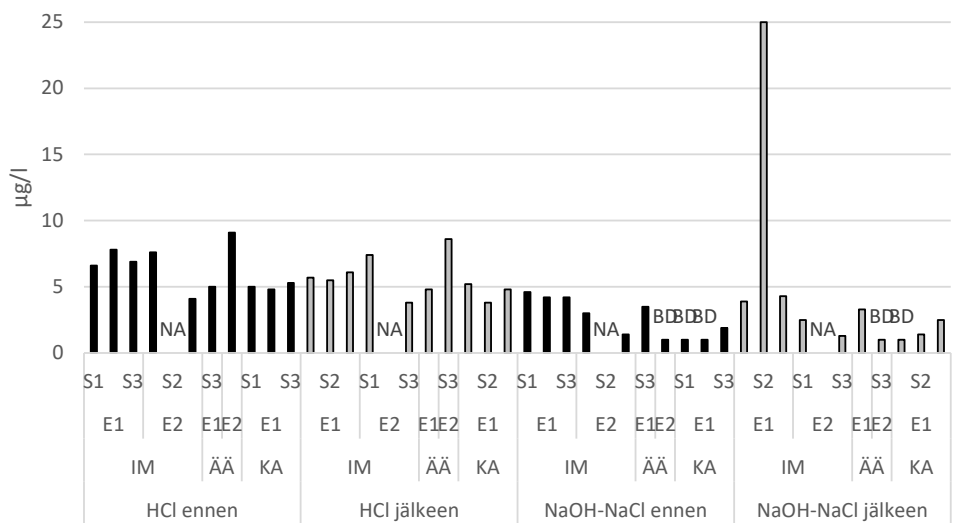
Kuva A3.29

Uraani, U, kationinvaihtohartseista



Kuva A3.30

Vanadiini, V, kationinvaihtohartseista



The bar chart displays the concentration of various substances in mg/l across different treatment stages and conditions. The y-axis ranges from 0 to 600 mg/l. The x-axis is divided into four main groups: HCl ennen, HCl jälkeen, NaOH-NaCl ennen, and NaOH-NaCl jälkeen. Each group contains sub-groups for IM, ÄÄ, and KA treatments, with further subdivisions for S1, S2, and S3. Some bars are labeled 'NA' (Not Available).

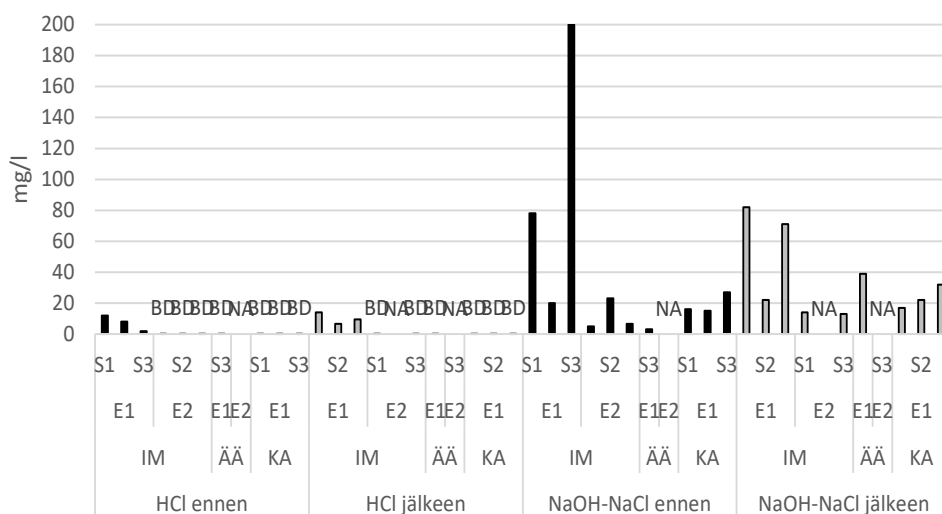
Group	Treatment	Sub-treatment	Concentration (mg/l)	
HCl ennen	IM	S1	~30	
		S3	~50	
		S2	~20	
	ÄÄ	S3	~200	
		S1	NA	
		S3	~100	
	KA	S1	~60	
		S3	~50	
		S2	~10	
	HCl jälkeen	IM	S1	~40
			S3	~10
			S2	~50
ÄÄ		S1	~10	
		S3	~40	
		S2	~100	
KA		S1	~40	
		S3	~100	
		S2	~80	
NaOH-NaCl ennen		IM	S1	~120
			S3	~110
			S2	~20
	ÄÄ	S1	~40	
		S3	~320	
		S2	~230	
	KA	S1	~140	
		S3	~120	
		S2	~190	
	NaOH-NaCl jälkeen	IM	S1	~60
			S3	~120
			S2	~10
ÄÄ		S1	~40	
		S3	~320	
		S2	~200	
KA		S1	~190	
		S3	~190	
		S2	~80	

The bar chart displays the concentration of 17β-OH progesterone in mg/l for four groups of subjects across six time points. The y-axis ranges from 0 to 600 mg/l. The x-axis labels include sample types (E1, E2, E1E2, E1) and treatment groups (IM, ÄÄ, KA). The groups are: HCl ennen, HCl jälkeen, NaOH-NaCl ennen, and NaOH-NaCl jälkeen. The bars are color-coded: light blue for HCl ennen, light green for HCl jälkeen, light orange for NaOH-NaCl ennen, and light pink for NaOH-NaCl jälkeen. The concentration is generally low, mostly below 100 mg/l, with some higher values (up to 600 mg/l) for the HCl jälkeen group at S1 and S3.

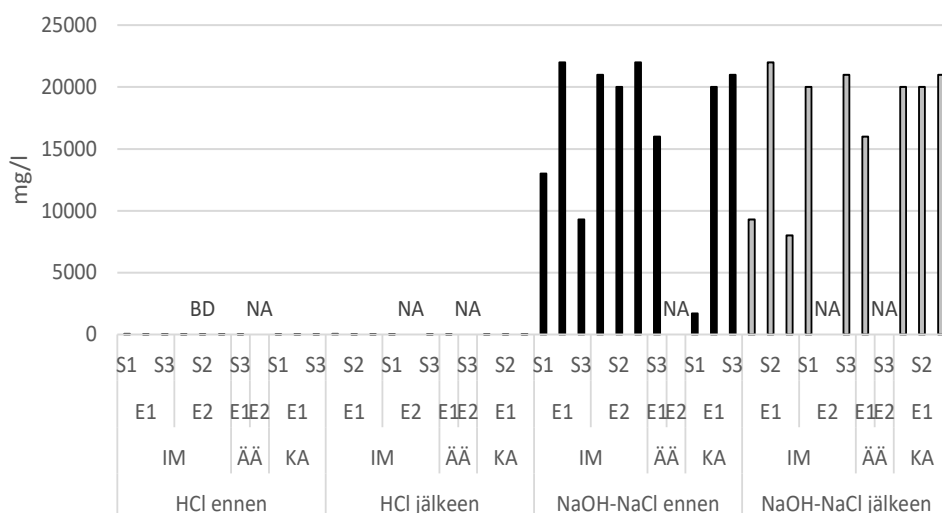
Group	Sample Type	Treatment	Concentration (mg/l)
HCl ennen	S1	E1	~50
	S3	E1	~50
	S2	E2	~50
	S3	E1E2	~50
	S1	E1	~50
	S3	E1	~50
HCl jälkeen	S2	E1	~50
	S1	E2	~50
	S3	E1E2	~50
	S3	E1	~50
	S2	E1	~50
	S1	E1	~50
NaOH-NaCl ennen	S1	E1	~50
	S3	E1	~50
	S2	E2	~50
	S3	E1E2	~50
	S1	E1	~50
	S3	E1	~50
NaOH-NaCl jälkeen	S2	E1	~50
	S1	E2	~50
	S3	E1E2	~50
	S3	E1	~50
	S2	E1	~50
	S1	E1	~50

Period	Sample	1,4-dichlorobenzene (mg/l)
HCl ennen	S1	BD
	S3	BD
	S2	BD
	S3	BD
	S1	BD
HCl jälkeen	S1	BD
	S3	BD
	S2	BD
	S3	BD
	S1	BD
NaOH-NaCl ennen	S1	BD
	S3	BD
	S2	BD
	S3	BD
	S1	BD
NaOH-NaCl jälkeen	S1	BD
	S3	BD
	S2	BD
	S3	BD
	S1	BD

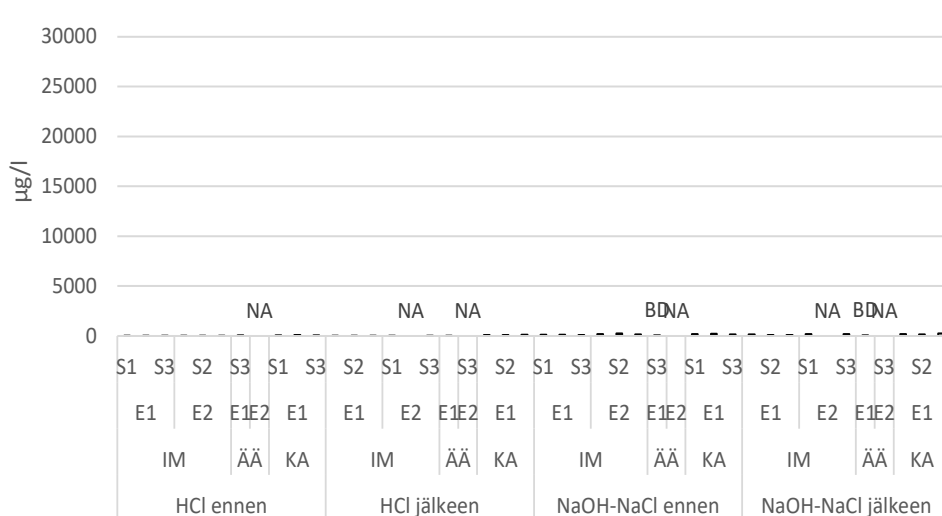
Kuva A4.4 Kalium, K, heikoista anioninvaihtohartseista



Kuva A4.5 Natrium, Na, heikoista anioninvaihtohartseista



Kuva A4.6 Alumiini, Al, heikoista anioninvaihtohartseista



Bar chart showing the concentration of ivermectin (µg/l) in water samples from the Hailu River. The y-axis ranges from 0 to 1000 µg/l. The x-axis shows four groups of samples: HCl ennen, HCl jälkeen, NaOH-NaCl ennen, and NaOH-NaCl jälkeen. Each group contains six samples (S1, S3, S2, S3, S1, S3) with corresponding treatments (E1, E2, E1E2, E1, E1, E1). The concentrations are generally low, with some 'NA' (Not Available) values indicated above certain bars.

Group	Sample	Treatment	Concentration (µg/l)
HCl ennen	S1	E1	~10
	S3	E2	~10
	S2	E1E2	~10
	S3	E1	~10
	S1	E1	~10
	S3	E1	~10
HCl jälkeen	S2	E1	~10
	S1	E2	~10
	S3	E1E2	~10
	S3	E1	~10
	S2	E1	~10
	S3	E1	~10
NaOH-NaCl ennen	S1	E1	~10
	S3	E2	~10
	S2	E1E2	~10
	S3	E1	~10
	S1	E1	~10
	S3	E1	~10
NaOH-NaCl jälkeen	S2	E1	~10
	S1	E2	~10
	S3	E1E2	~10
	S3	E1	~10
	S2	E1	~10
	S3	E1	~10

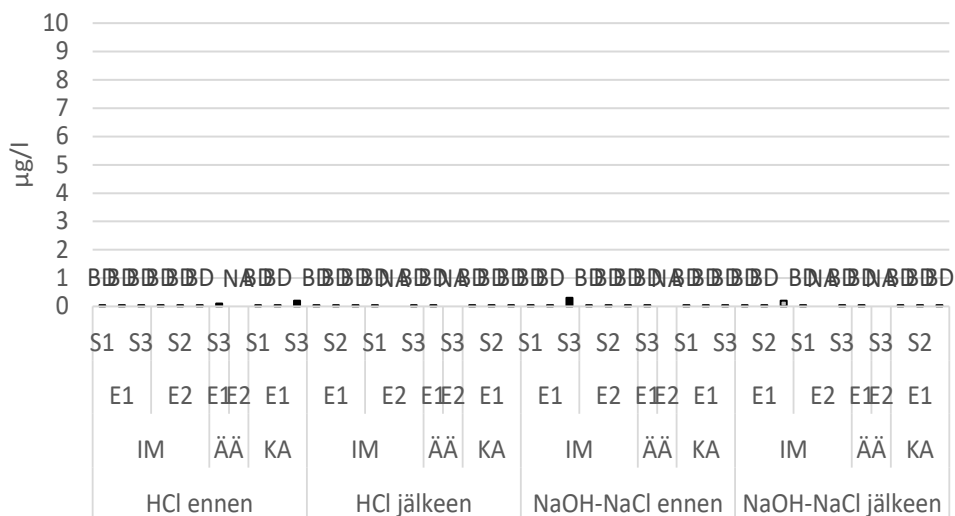
Bar chart showing mercury concentration (µg/l) in water samples from the Kallurvesi water treatment plant. The y-axis ranges from 0 to 1000 µg/l. The x-axis shows four groups of samples: HCl ennen, HCl jälkeen, NaOH-NaCl ennen, and NaOH-NaCl jälkeen. Each group has six samples (S1, S3, S2, S3, S1, S3) with corresponding E1, E2, E1E2, E1, E1, and E1 labels. Most samples are below 100 µg/l, with one sample (S1 in HCl jälkeen) reaching approximately 100 µg/l.

Group	Sample	Label	Concentration (µg/l)
HCl ennen	S1	E1	~10
	S3	E2	~10
	S2	E1E2	~10
	S3	E1	~10
	S1	E1	~10
	S3	E1	~10
HCl jälkeen	S1	E1	~10
	S3	E2	~10
	S2	E1E2	~10
	S3	E1	~10
	S1	E1	~100
	S3	E1	~10
NaOH-NaCl ennen	S1	E1	~10
	S3	E2	~10
	S2	E1E2	~10
	S3	E1	~10
	S1	E1	~10
	S3	E1	~10
NaOH-NaCl jälkeen	S1	E1	~10
	S3	E2	~10
	S2	E1E2	~10
	S3	E1	~10
	S1	E1	~10
	S3	E1	~10

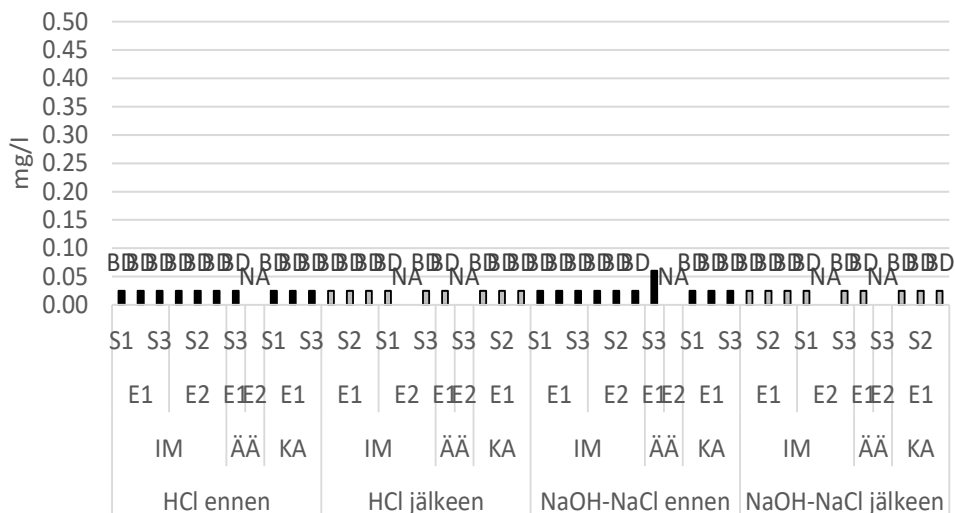
The bar chart displays the concentration of polychlorinated biphenyls (PCBs) in µg/l for four groups of samples. The y-axis represents the concentration in µg/l, ranging from 0 to 500. The x-axis shows the sample groups and their replicates. The groups are: HCl ennen, HCl jälkeen, NaOH-NaCl ennen, and NaOH-NaCl jälkeen. Each group has multiple samples (S1, S2, S3) and replicates (E1, E2). The chart shows that PCB concentrations are generally low in the 'ennen' (before) samples and increase significantly in the 'jälkeen' (after) samples, particularly in the NaOH-NaCl group.

Group	Sample	Replicate	Concentration (µg/l)
HCl ennen	S1	E1	~20
	S3	E1	~20
	S2	E1	~20
	S3	E1	~20
	S1	E2	~20
	S3	E1	~20
HCl jälkeen	S1	E1	~20
	S3	E1	~20
	S2	E1	~20
	S1	E2	~20
	S3	E1	~20
	S3	E2	~20
NaOH-NaCl ennen	S1	E1	~250
	S3	E1	~300
	S2	E1	~330
	S3	E1	~380
	S2	E2	~480
	S3	E2	~320
NaOH-NaCl jälkeen	S1	E1	~410
	S3	E1	~340
	S2	E1	~290
	S3	E1	~180
	S1	E2	~240
	S3	E2	~340
NaOH-NaCl jälkeen	S1	E1	~380
	S3	E1	~230
	S2	E1	~430
	S3	E1	~330
	S2	E2	~420
	S3	E2	~420

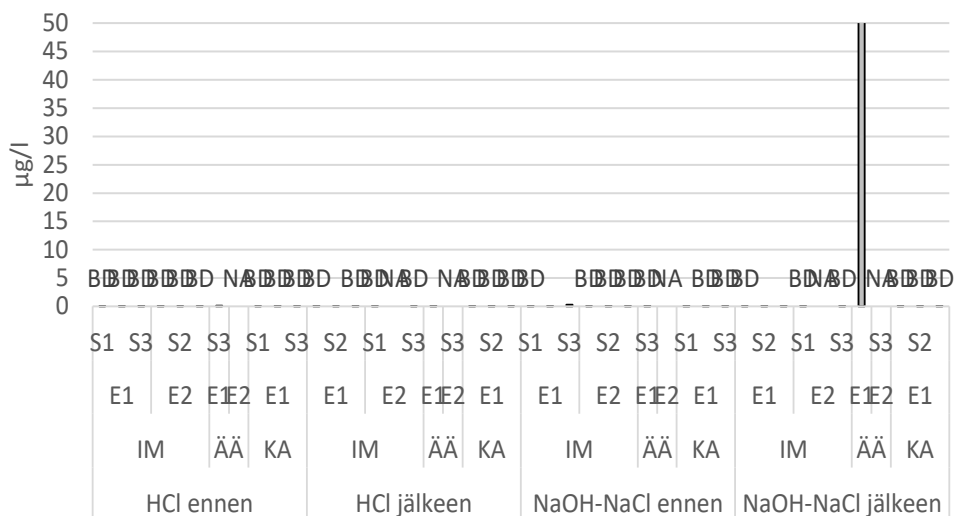
Kuva A4.10 Elohopea, Hg, heikoista anioninvaihtohartseista



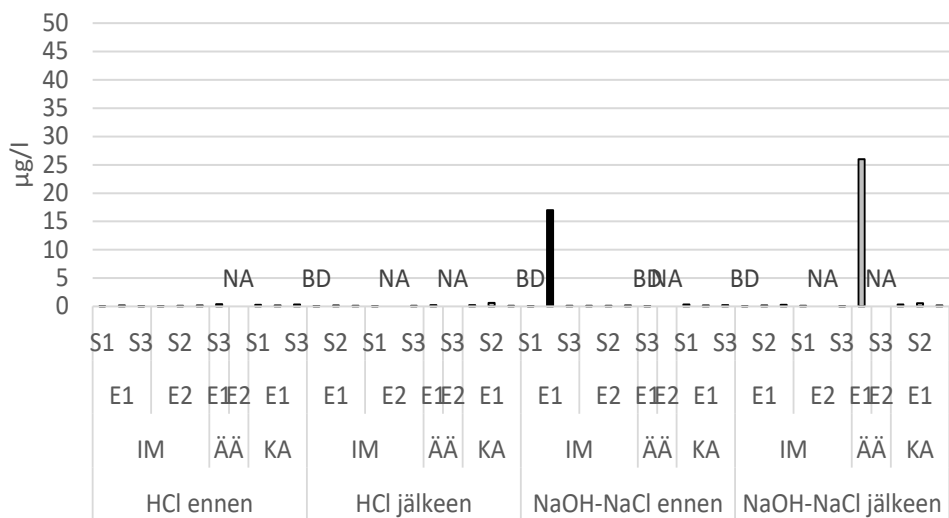
Kuva A4.11 Fosfori, P, heikoista anioninvaihtohartseista



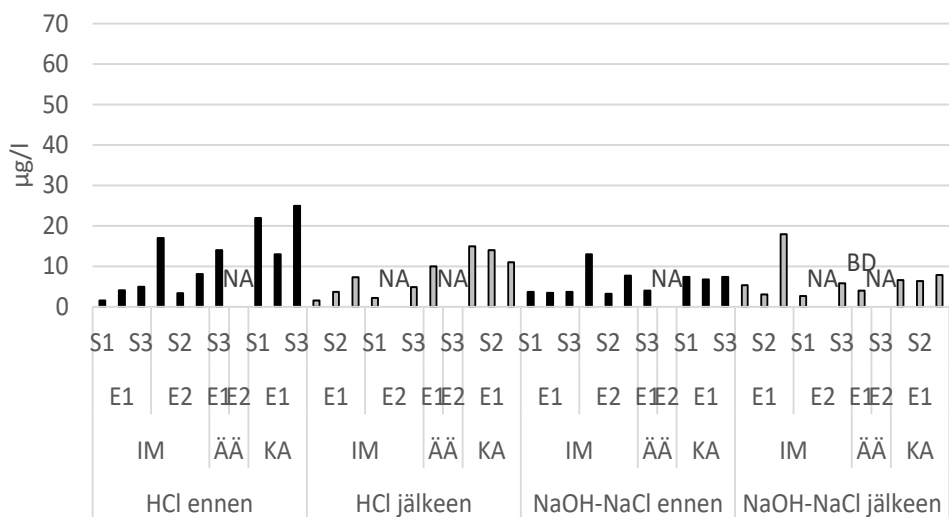
Kuva A4.12 Kadmium, Cd, heikoista anioninvaihtohartseista



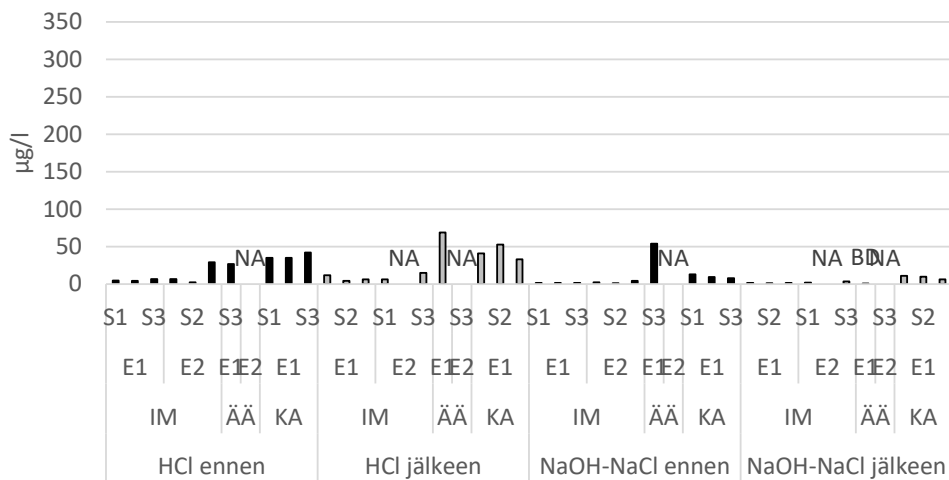
Kuva A4.13 Koboltti, Co, heikoista anioninvaihtohartseista



Kuva A4.14 Kromi, Cr, heikoista anioninvaihtohartseista

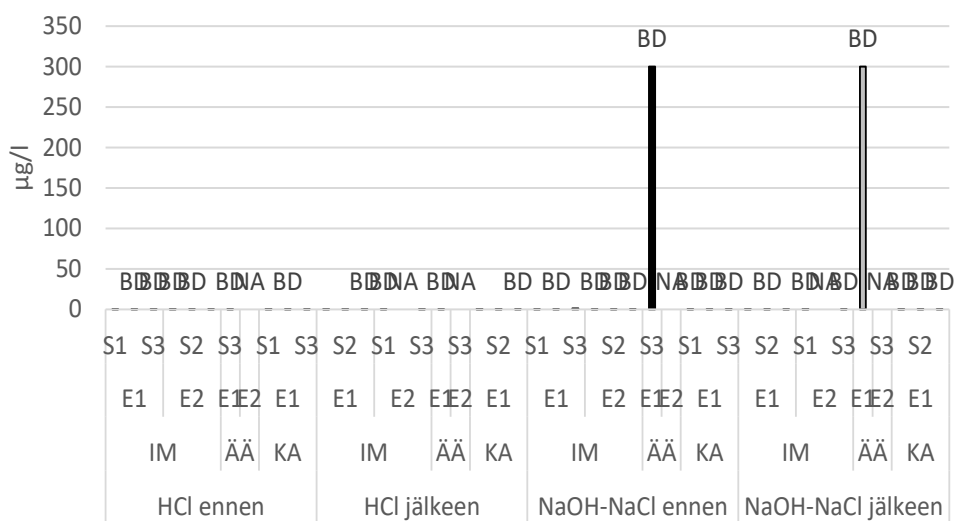


Kuva A4.15 Kupari, Cu, heikoista anioninvaihtohartseista



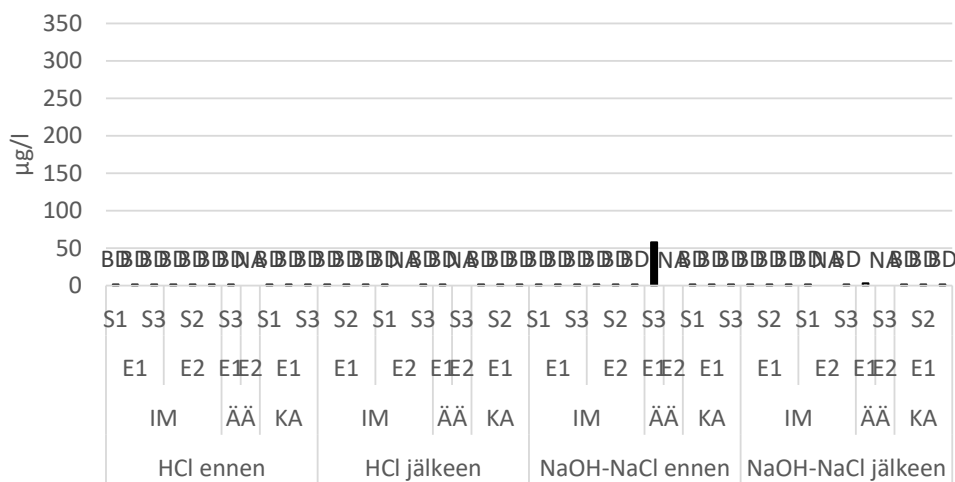
Kuva A4.16

Lyijy, Pb, heikoista anioninvaihtohartseista



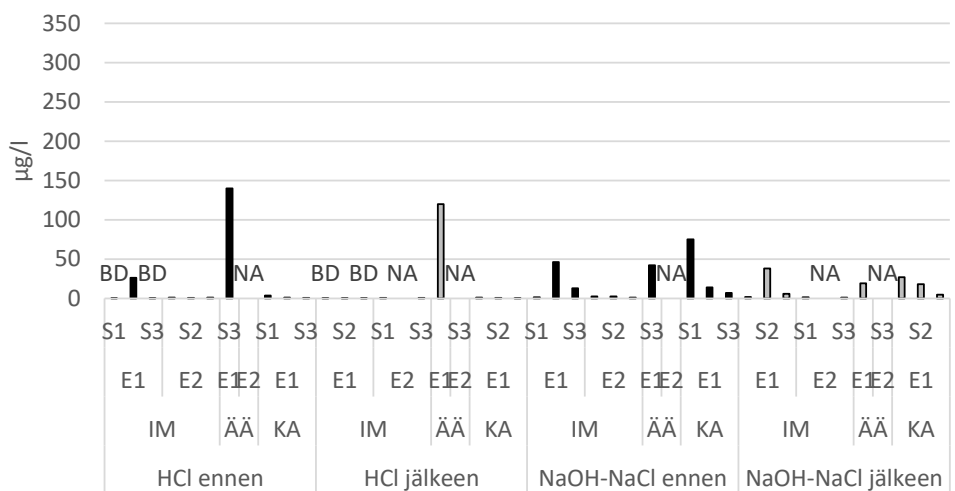
Kuva A4.17

Mangaani, Mn, heikoista anioninvaihtohartseista

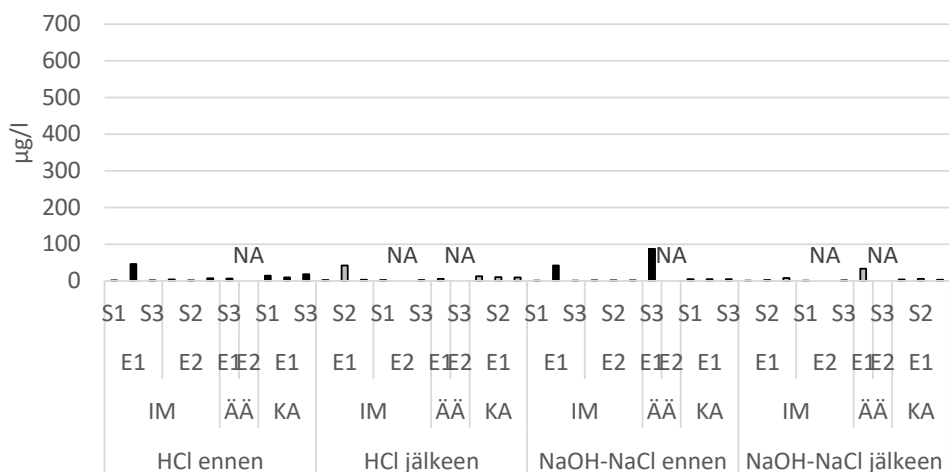


Kuva A4.18

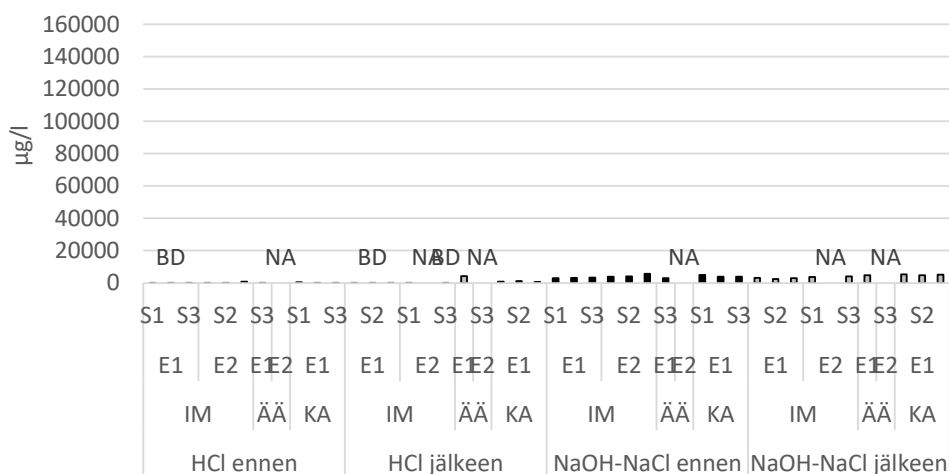
Molybdeeni, Mo, heikoista anioninvaihtohartseista



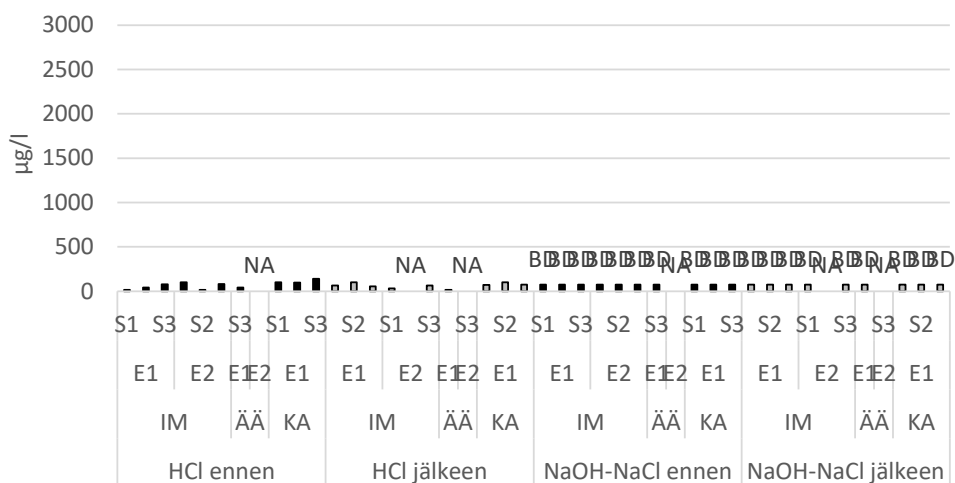
Kuva A4.19 Nikkeli, Ni, heikoista anioninvaihtohartseista



Kuva A4.20 Pii, Si, heikoista anioninvaihtohartseista

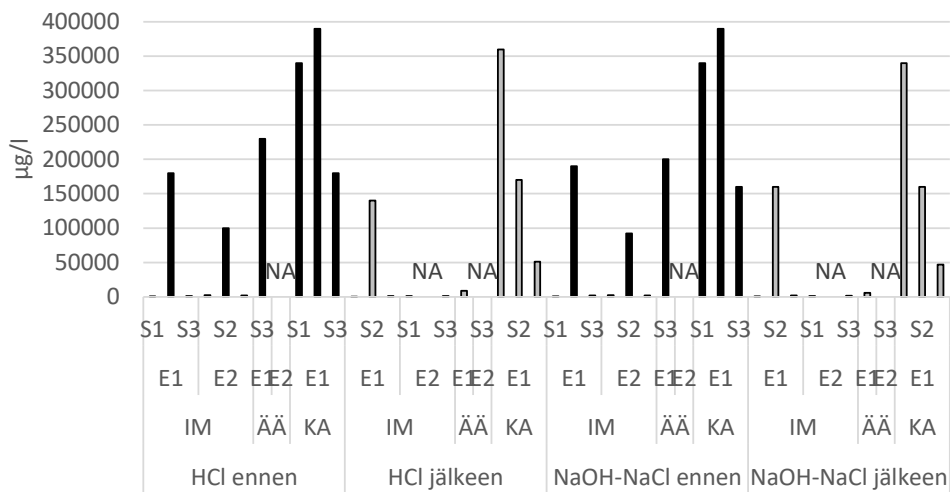


Kuva A4.21 Rauta, Fe, heikoista anioninvaihtohartseista



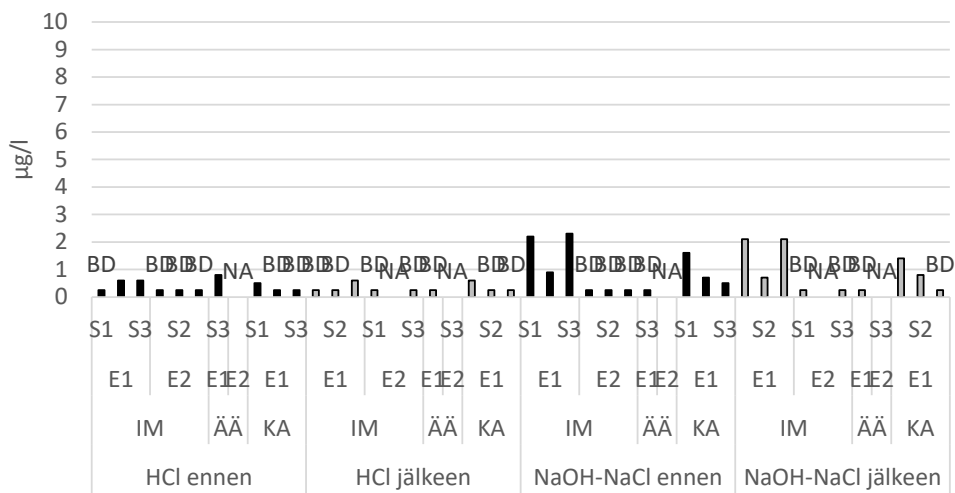
Kuva A4.22

Rikki, S, heikoista anioninvaihtohartseista



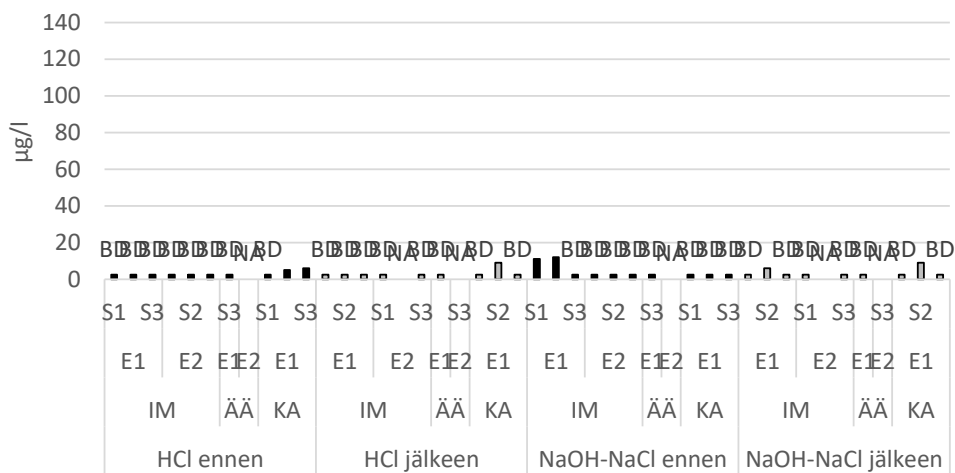
Kuva A4.23

Seleeni, Se, heikoista anioninvaihtohartseista

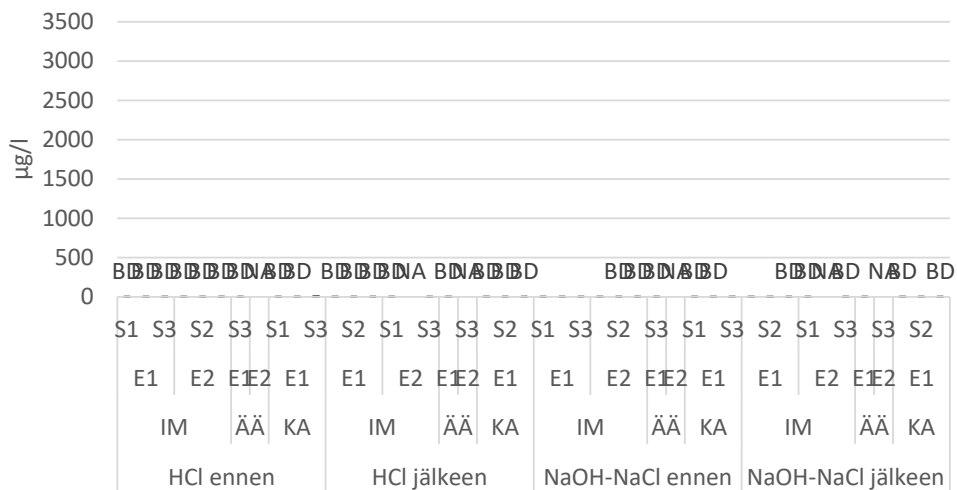


Kuva A4.24

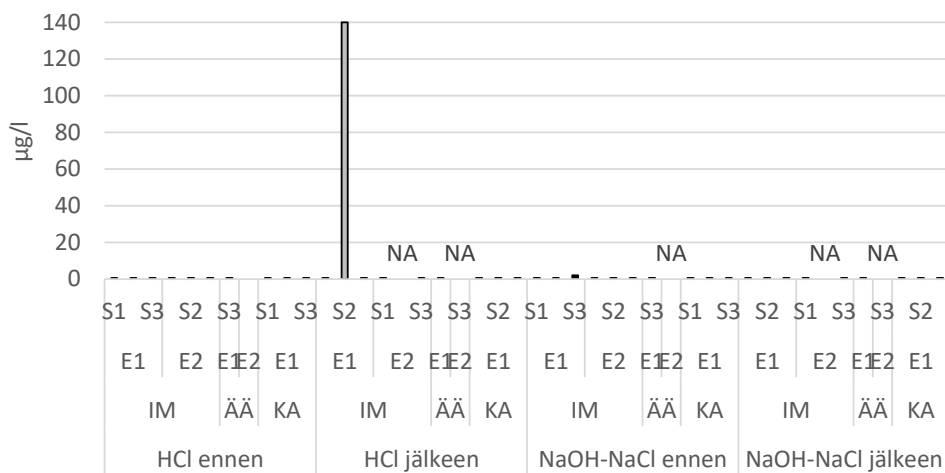
Sinkki, Zn, heikoista anioninvaihtohartseista



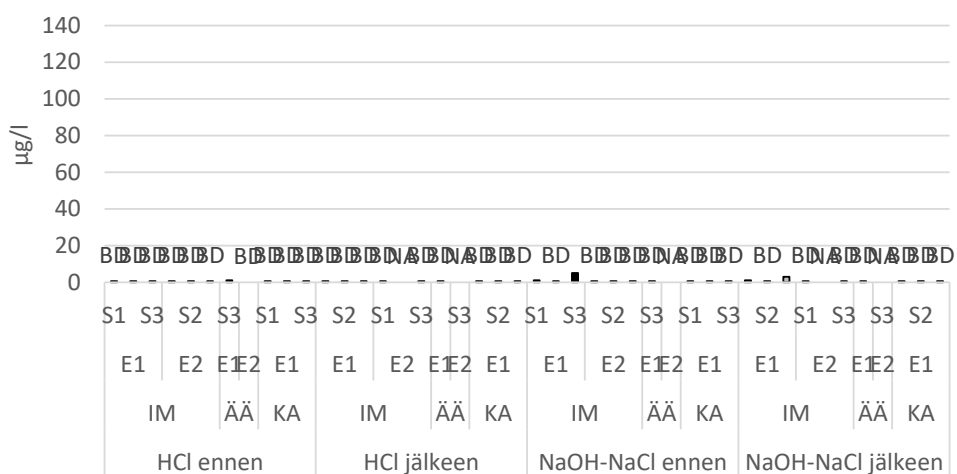
Kuva A4.25 Strontium, Sr, heikoista anioninvaihtohartseista



Kuva A4.26 Tallium, Tl, heikoista anioninvaihtohartseista

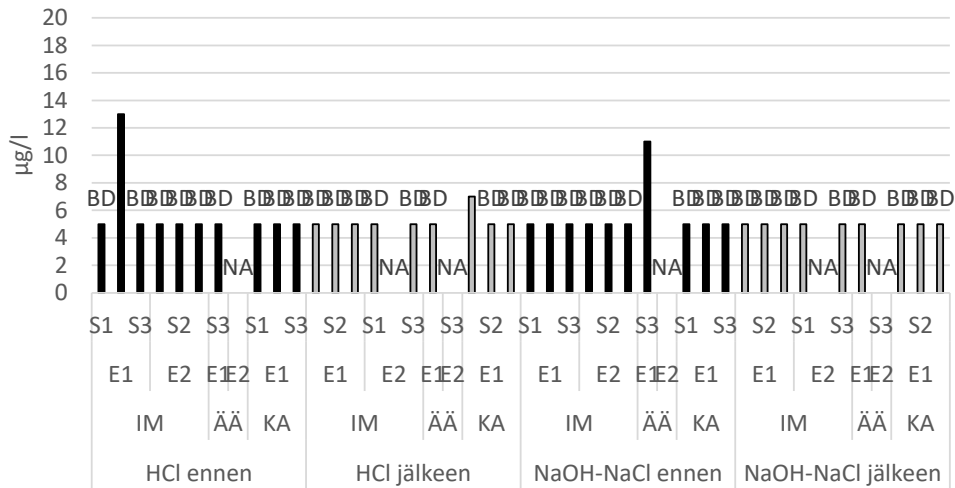


Kuva A4.27 Tina, Sn, heikoista anioninvaihtohartseista



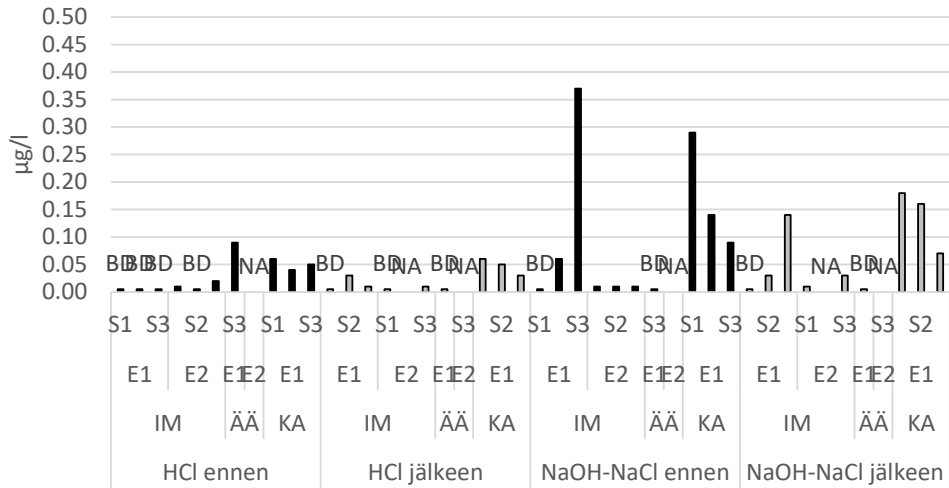
Kuva A4.28

Titaani, Ti heikoista anioninvaihtohartseista



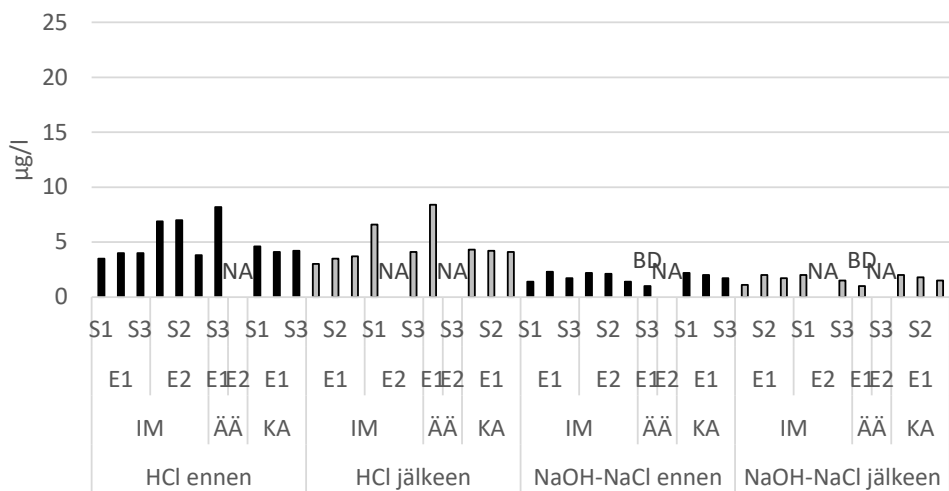
Kuva A4.29

Uraani, U, heikoista anioninvaihtohartseista

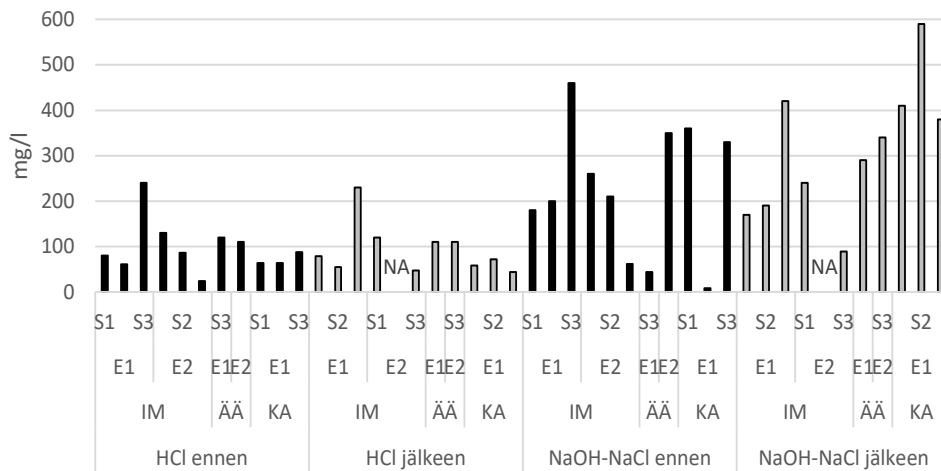


Kuva A4.30

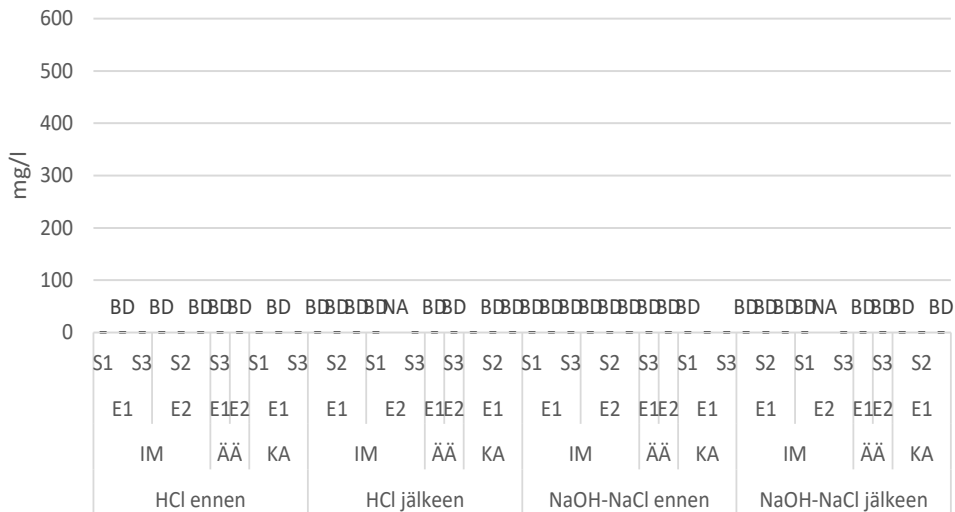
Vanadiini, V, heikoista anioninvaihtohartseista



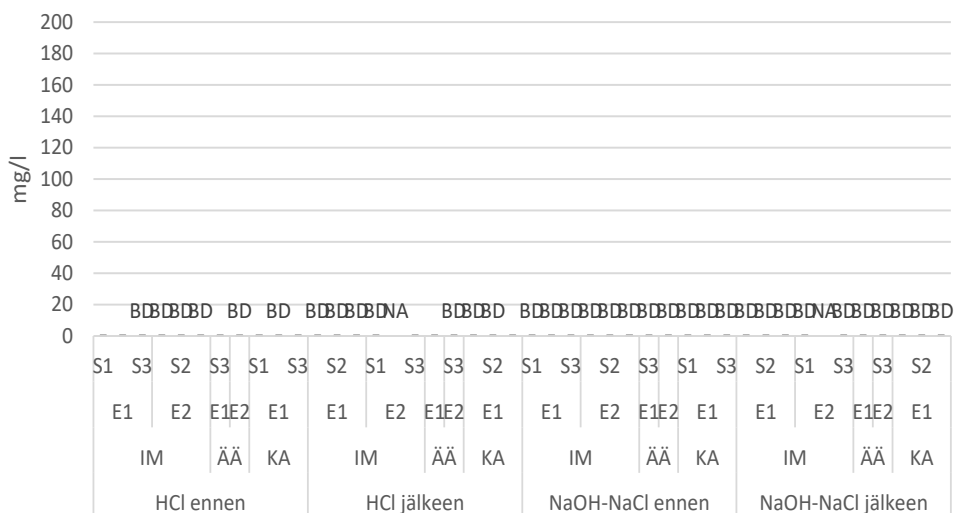
Kuva A5.1 Orgaanisen hiilen kokonaismäärä, TOC vahvoista anioninvaihtohartseista



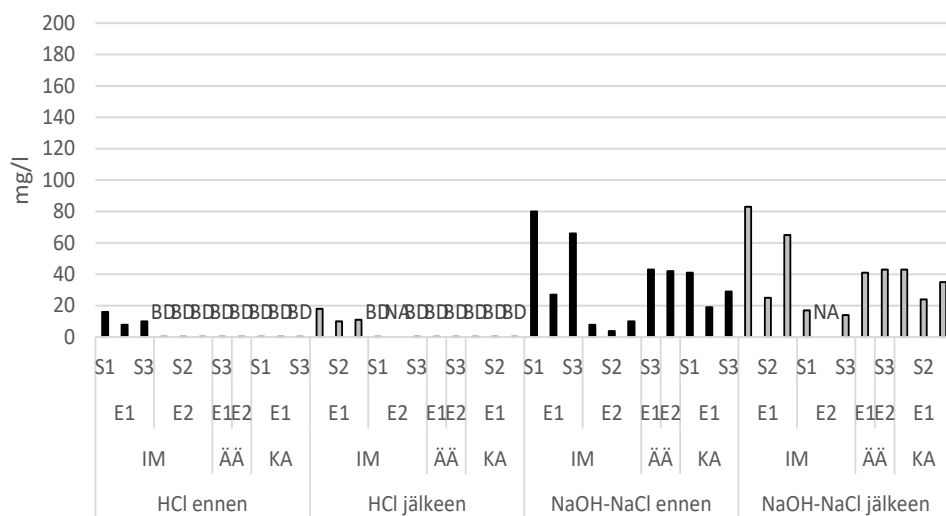
Kuva A5.2 Kalsium, Ca, vahvoista anioninvaihtohartseista



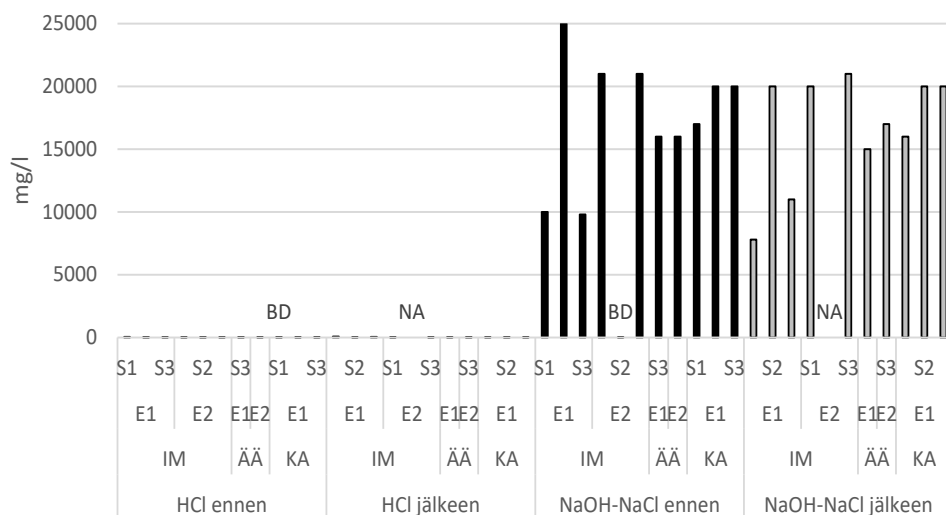
Kuva A5.3 Magnesium, Mg, vahvoista anioninvaihtohartseista



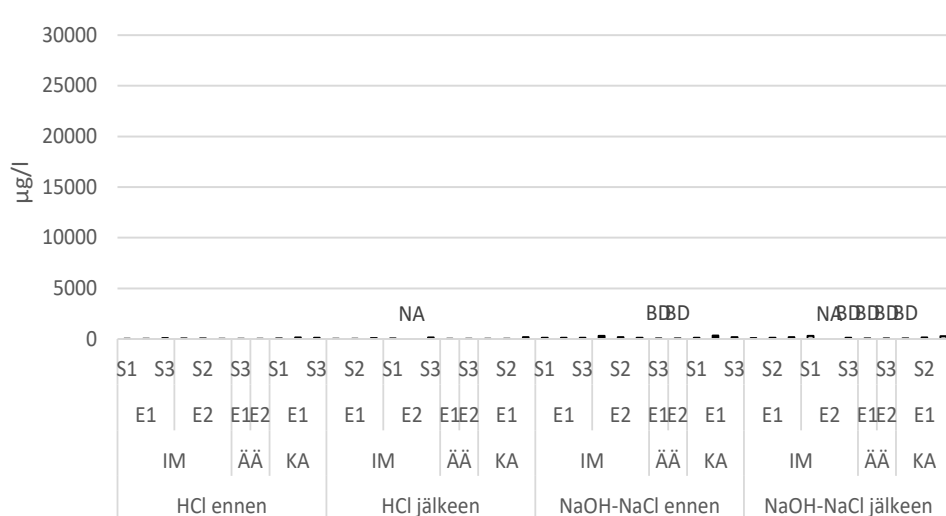
Kuva A5.4 Kalium, K, vahvoista anioninvaihtohartseista



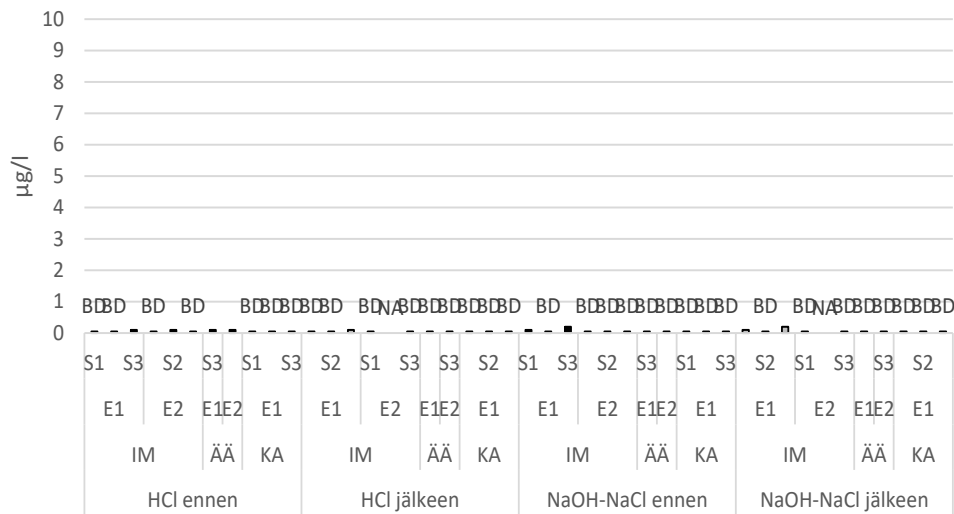
Kuva A5.5 Natrium, Na, vahvoista anioninvaihtohartseista



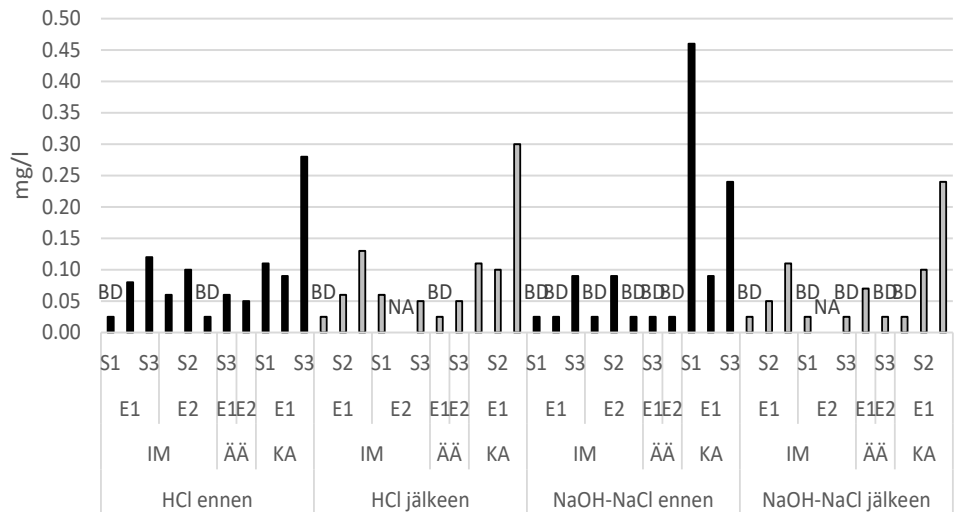
Kuva A5.6 Alumiini, Al, vahvoista anioninvaihtohartseista



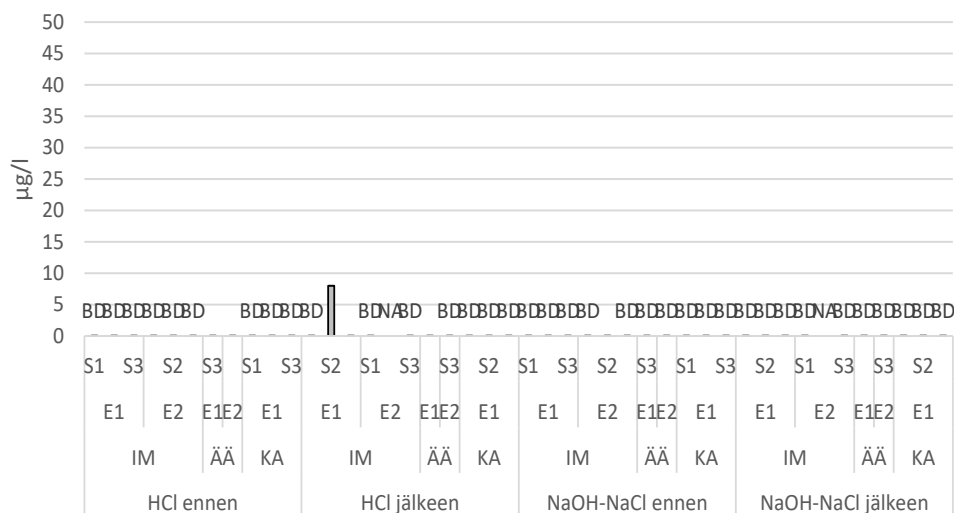
Kuva A5.10 Elohopea, Hg, vahvoista anioninvaihtohartseista



Kuva A5.11 Fosfori, P, vahvoista anioninvaihtohartseista

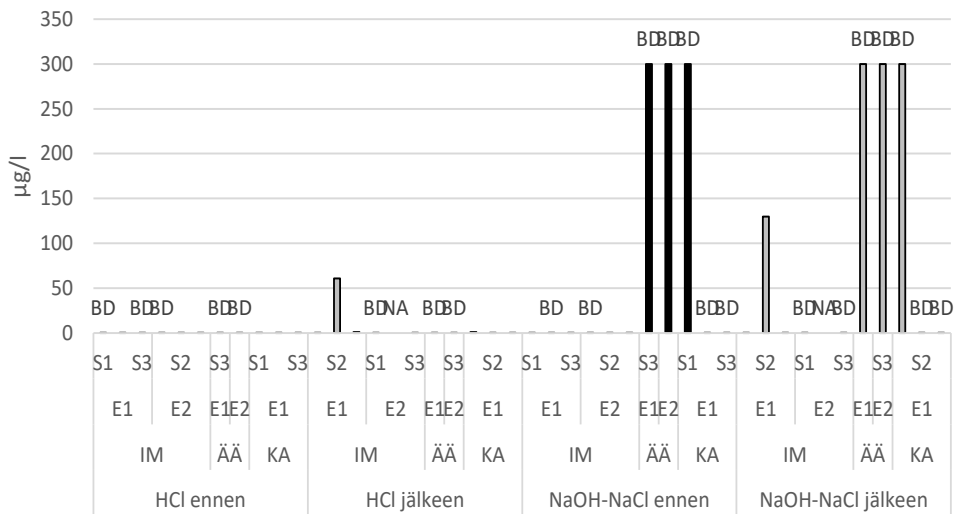


Kuva A5.12 Kadmium, Cd, vahvoista anioninvaihtohartseista



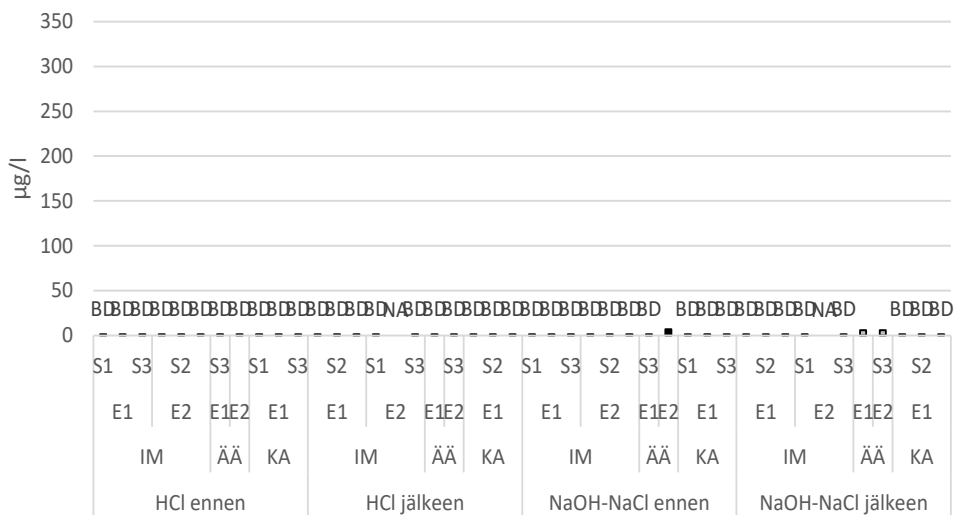
Kuva A5.16

Lyijy, Pb, vahvoista anioninvaihtohartseista



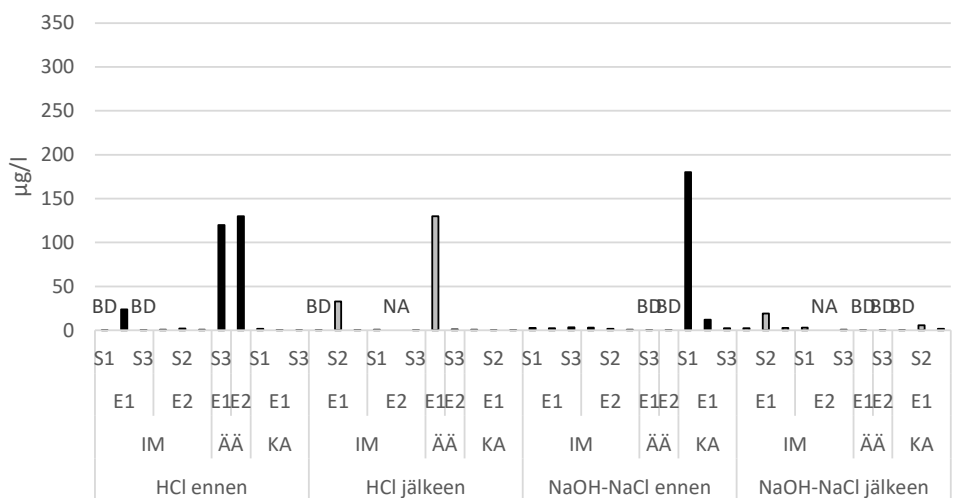
Kuva A5.17

Mangaani, Mn, vahvoista anioninvaihtohartseista

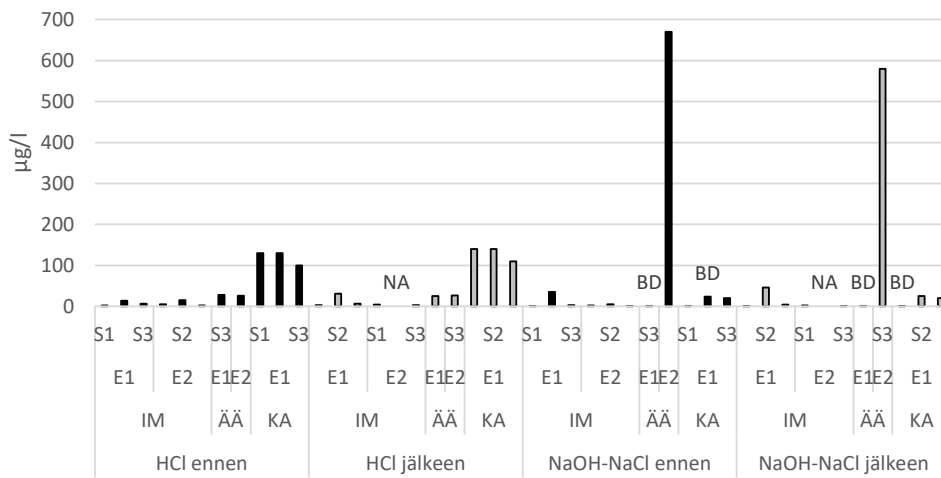


Kuva A5.18

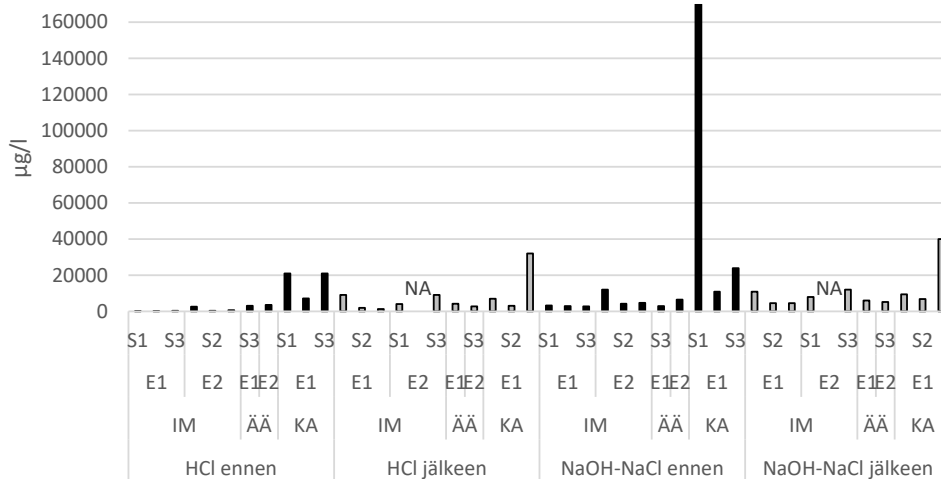
Molybdeeni, Mo, vahvoista anioninvaihtohartseista



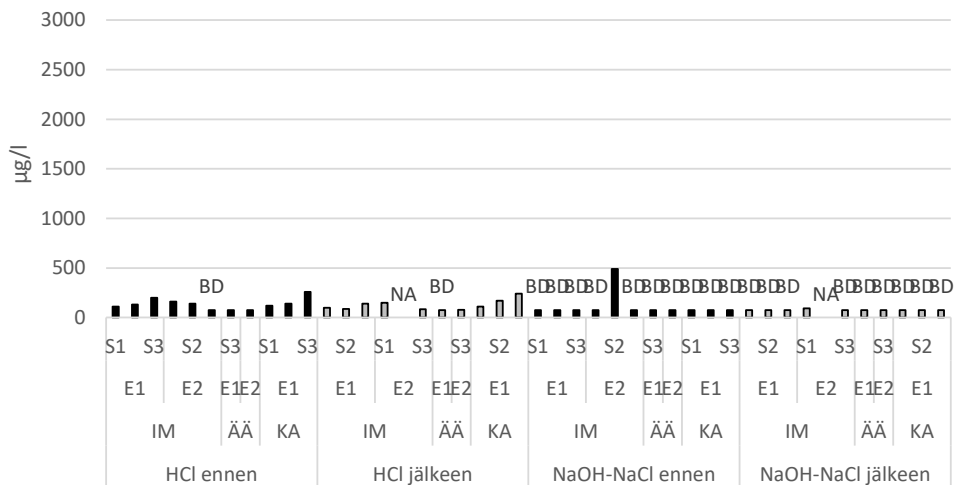
Kuva A5.19 Nikkeli, Ni, vahvoista anioninvaihtohartseista



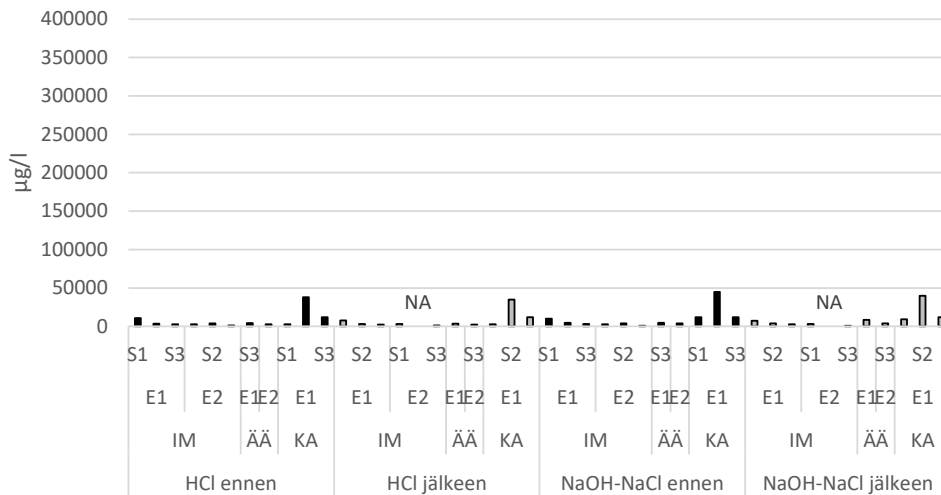
Kuva A5.20 Pii, Si, vahvoista anioninvaihtohartseista



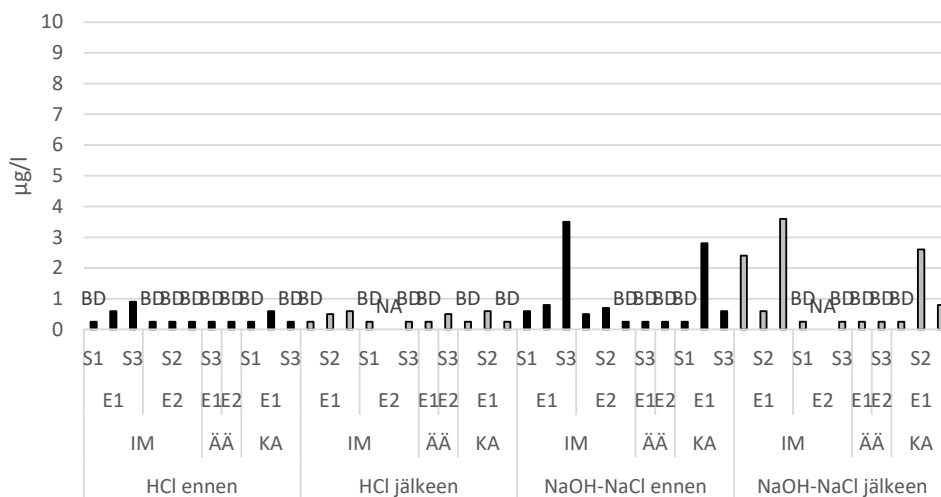
Kuva A5.21 Rauta, Fe, vahvoista anioninvaihtohartseista



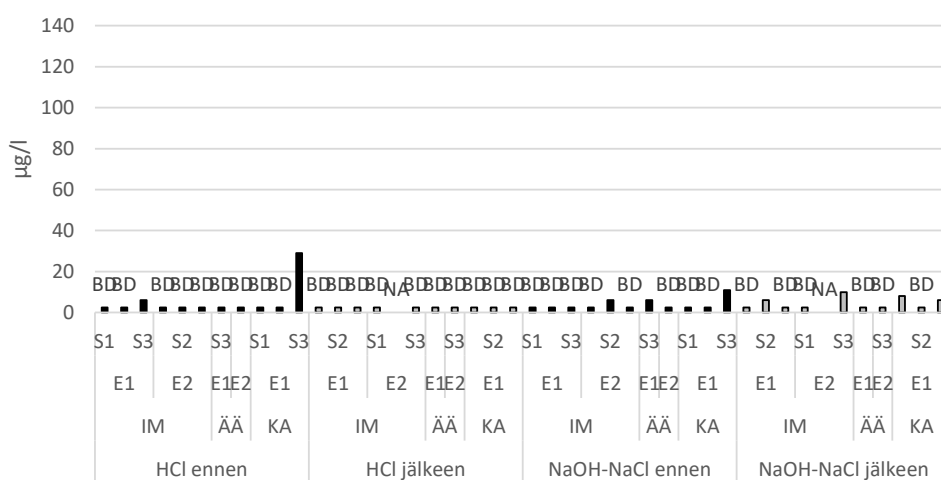
Kuva A5.22 Rikki, S, vahvoista anioninvaihtohartseista



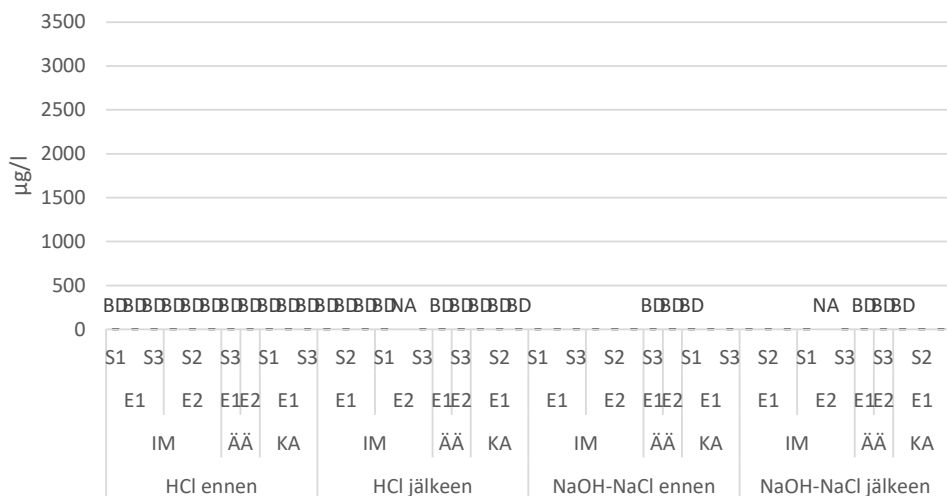
Kuva A5.23 Seleen, Se, vahvoista anioninvaihtohartseista



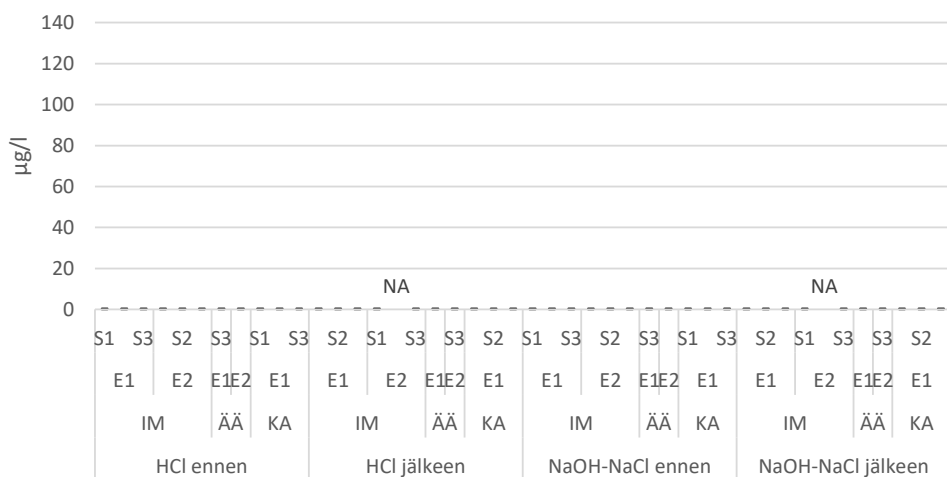
Kuva A5.24 Sinkki, Zn, vahvoista anioninvaihtohartseista



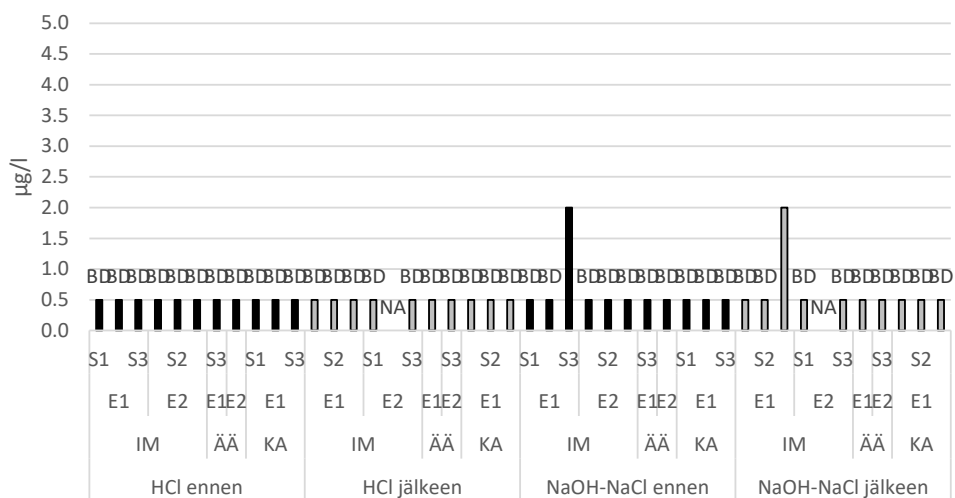
Kuva A5.25 Strontium, Sr, vahvoista anioninvaihtohartseista



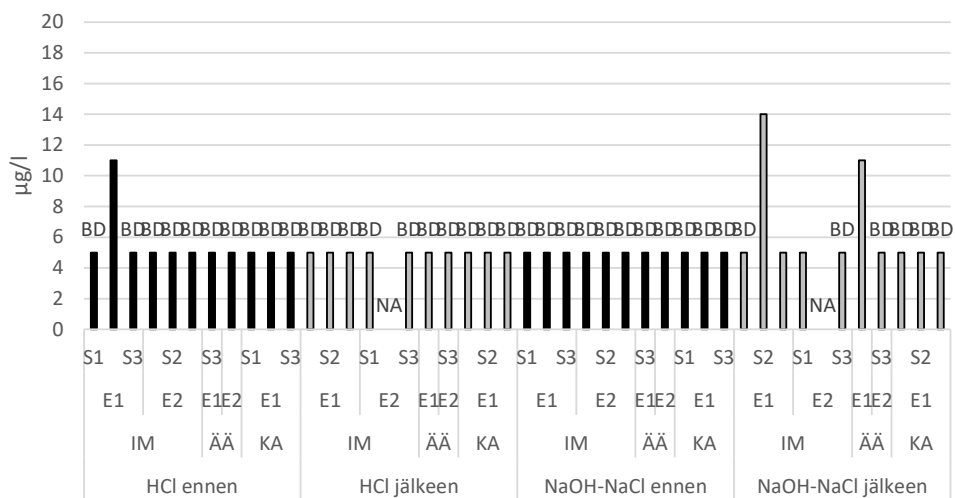
Kuva A5.26 Tallium, Tl, vahvoista anioninvaihtohartseista



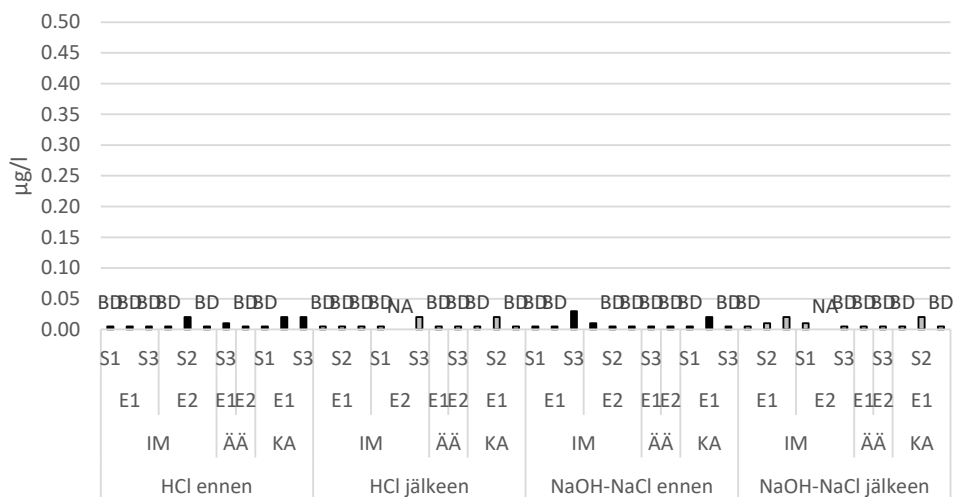
Kuva A5.27 Tina, Sn, vahvoista anioninvaihtohartseista



Kuva A5.28 Titaani, Ti vahvoista anioninvaihtohartseista



Kuva A5.29 Uraani, U, vahvoista anioninvaihtohartseista



Kuva A5.30 Vanadiini, V, vahvoista anioninvaihtohartseista

