

Survey: **HS1/21**
month: **February 2021**
Participant-No: **9907016**
date of issue: **27.02.21**



Referenzinstitut für Bioanalytik

Krajská nemocnice T. Bati, a.s.
Oddeleni klinické biochemie
a farmakologie
Prim. MUDr. Tomáš Sálek, Ph.D., EuSpLM
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CZECH REPUBLIC



Survey directors

Prof. Dr. C. Knabbe
Prof. Dr. Dr. K.P. Kohse
Prof. Dr. M. Neumaier

Head of RfB

Dr. W. J. Geilenkeuser
Dr. A. Kessler

Bonn, 9. March 2021

Certificate

We confirm that you have participated in the survey for urinary calculi analyses.

All in all, you have analysed correctly the four survey samples.

This certificate is according to the current version of the RiliBÄK valid until the end of February 2022.

http://www.rfb.bio/cg/certificate?nr=9907016&rv_id=HS211&version=0&uid=6320462FC6644F50AC03EC37BD23A1BB4

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Listing of your analytical results and scoring

- = identified, simplified analytical results in braces
- = not identified
- f** = wrong finding

			Points
Sample A			
Weddellite (32)	60%	•	3,0
Whewellite (31)	40%	•	3,0
Apatite (41)	0%	-	-
Sample B			
Whewellite (31)	70%	•	3,0
Uricite (20)	30%	•	3,0
Sample C			
Cristal sugar (51)	100%	•	4,0
Sample D			
Struvite (45)	40%	•	3,0
Whewellite (31)	30%	•	3,0
Apatite (41)	30%	•	3,0

Total **25,0**

of 25 ✓
[at least 18,0 for certificate]

Legend:	<input type="radio"/>	= qualitative correct	n = corresponding number of results
	<input type="radio"/>	= qual. correct with reservation	
	<input type="checkbox"/>	= correct position (1., 2. or 3.)	
	•	= your qualitative analysis	
			* = your quantitative result

Sample A
 - Weddellite (60%), Whewellite (40%) -

I. Qualitative/quantitative evaluation of methods

Infrared spectroscopy

1.	n	2.	n	3.	n	Substance	number of participants
<input checked="" type="checkbox"/>	56	<input type="checkbox"/>	37	<input type="checkbox"/>		Weddellite	99
<input checked="" type="checkbox"/>	41	<input checked="" type="checkbox"/>	54	<input type="checkbox"/>		Whewellite	93
<input type="checkbox"/>	2	<input type="checkbox"/>	2	•	48	Calciumoxalate	2
<input type="checkbox"/>		<input type="checkbox"/>	1		1	Apatite	50
<input type="checkbox"/>		<input type="checkbox"/>			1	Whitlockite	2
<input type="checkbox"/>		<input type="checkbox"/>			1	Uricite	1

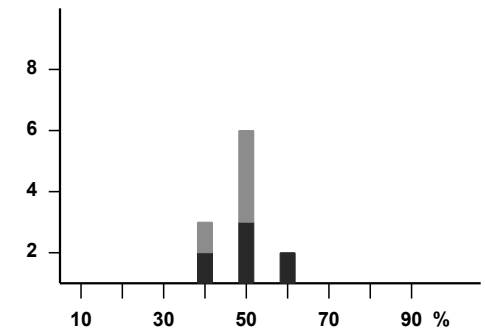
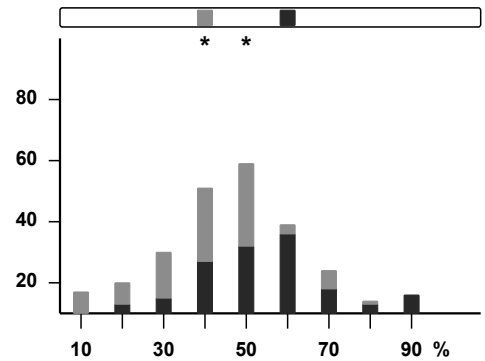
X-ray diffraction

1.	n	2.	n	3.	n	Substance	number of participants
<input type="checkbox"/>	3	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>		Whewellite	4
<input checked="" type="checkbox"/>	1	<input type="checkbox"/>	3	<input type="checkbox"/>	1	Weddellite	4
<input type="checkbox"/>		<input type="checkbox"/>				Apatite	1

Chemical analysis and others

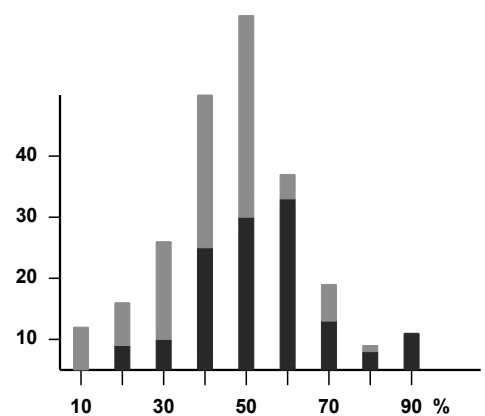
1.	n	2.	n	3.	n	Substance	number of participants
<input type="checkbox"/>	3	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>		Whewellite	5
<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	3	Weddellite	5
<input type="checkbox"/>		<input type="checkbox"/>			1	Apatite	3
<input type="checkbox"/>		<input type="checkbox"/>			1	Whitlockite	1

Quantitative results of qualitativ correct analyses
 ■ = 60% Weddellite
 ■ = 40% Whewellite



II. Evaluation of single components (Ions)

<input type="checkbox"/>	13	Oxalate
<input type="checkbox"/>	10	Calcium
<input type="checkbox"/>	4	Phosphate
<input type="checkbox"/>	1	Carbonate
<input type="checkbox"/>	1	Urate



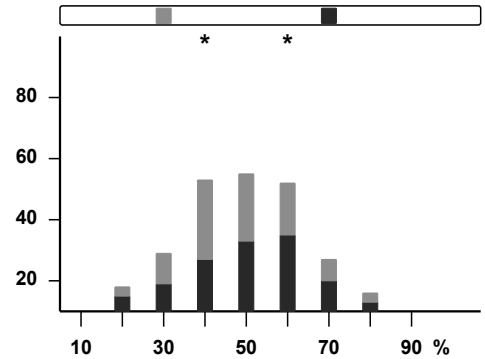
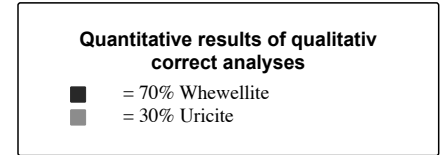
Legend:	<input checked="" type="radio"/>	= qualitative correct	n = corresponding number of results
	<input type="radio"/>	= qual. correct with reservation	
	<input type="checkbox"/>	= correct position (1., 2. or 3.)	
	•	= your qualitative analysis	
			* = your quantitative result

Sample B
 - Whewellite (70%), Uricite (30%) -

I. Qualitative/quantitative evaluation of methods

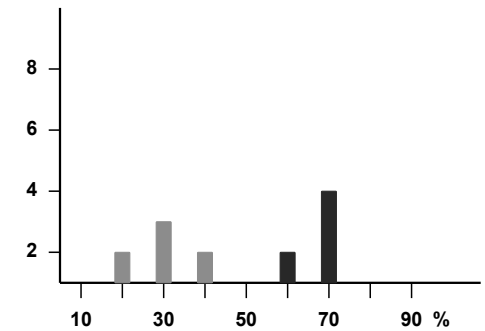
Infrared spectroscopy

1.	n	2.	n	3.	n	Substance	n
<input checked="" type="checkbox"/>	56	<input checked="" type="checkbox"/>	40	<input type="checkbox"/>	1	Whewellite	97
<input checked="" type="checkbox"/>	39	<input checked="" type="checkbox"/>	52	<input type="checkbox"/>	1	Uricite	92
<input type="checkbox"/>	2	<input type="checkbox"/>	1	<input type="checkbox"/>		Uric acid	3
<input type="checkbox"/>	1	<input type="checkbox"/>	1	<input type="checkbox"/>		Calciumoxalate	2
<input type="checkbox"/>	1	<input type="checkbox"/>		<input type="checkbox"/>	2	Weddellite	3
			3		2	Uric acid dihydrate	5
			1		2	Uric acid monohydrate	3



X-ray diffraction

1.	n	2.	n	3.	n	Substance	n
<input checked="" type="checkbox"/>	4	<input checked="" type="checkbox"/>	4	<input type="checkbox"/>		Whewellite	4
				<input type="checkbox"/>	1	Uricite	4
				<input type="checkbox"/>	1	Uric acid dihydrate	1



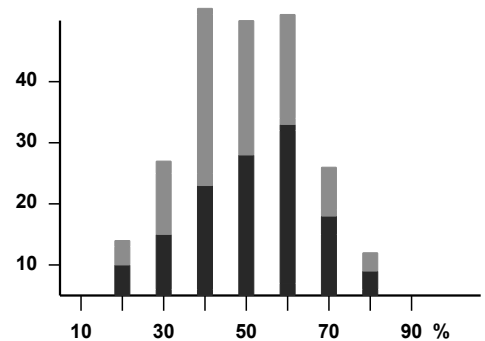
Chemical analysis and others

1.	n	2.	n	Substance	n
<input checked="" type="checkbox"/>	3	<input type="checkbox"/>	2	Whewellite	5
<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	2	Uricite	4
		<input type="checkbox"/>	1	Weddellite	1



II. Evaluation of single components (Ions)

<input type="checkbox"/>	10	Calcium
<input type="checkbox"/>	10	Oxalate
<input type="checkbox"/>	10	Urate



Legend:	<input checked="" type="radio"/>	= qualitative correct	n = corresponding number of results
	<input type="radio"/>	= qual. correct with reservation	
	<input type="checkbox"/>	= correct position (1., 2. or 3.)	
	•	= your qualitative analysis	
			* = your quantitative result

Sample C
- Cristal sugar -

I. Qualitative/quantitative evaluation of methods

<u>Infrared spectroscopy</u>				number of participants	100		
1.	n	2.	n	3.	n	Substance	n
<input checked="" type="checkbox"/>	82	<input type="checkbox"/>		<input type="checkbox"/>		Cristal sugar	82
<input type="checkbox"/>	8	<input type="checkbox"/>	1	<input type="checkbox"/>		non-identifiable	9
<input type="checkbox"/>	2	<input type="checkbox"/>		<input type="checkbox"/>		Calciumphosphate	2
<input type="checkbox"/>	2	<input type="checkbox"/>		<input type="checkbox"/>		Apatite	2
<input type="checkbox"/>	2	<input type="checkbox"/>		<input type="checkbox"/>		Artefact/Forgery of unknown origin	2
<input type="checkbox"/>	1	<input type="checkbox"/>		<input type="checkbox"/>	1	Struvite	2
<input type="checkbox"/>	1	<input type="checkbox"/>		<input type="checkbox"/>		Whitlockite	1
<input type="checkbox"/>	1	<input type="checkbox"/>		<input type="checkbox"/>		Brushite	1
<input type="checkbox"/>	1	<input type="checkbox"/>		<input type="checkbox"/>		Protein	1
<input type="checkbox"/>		<input type="checkbox"/>	1	<input type="checkbox"/>		Monoammonium urate	1
<input type="checkbox"/>		<input type="checkbox"/>	1	<input type="checkbox"/>		Whewellite	1
<input type="checkbox"/>		<input type="checkbox"/>	1	<input type="checkbox"/>		Newberyite	1

<u>X-ray diffraction</u>				number of participants	3
1.	n			Substance	n
<input checked="" type="checkbox"/>	2			Cristal sugar	2
<input type="checkbox"/>	1			non-identifiable	1

<u>Chemical analysis and others</u>				number of participants	5
1.	n	2.	n	Substance	n
<input checked="" type="checkbox"/>	3	<input type="checkbox"/>		Cristal sugar	3
<input type="checkbox"/>	1	<input type="checkbox"/>	1	Whewellite	2
<input type="checkbox"/>	1	<input type="checkbox"/>	1	Weddellite	2

II. Evaluation of single components (Ions)

<input type="checkbox"/>	1	Calcium
<input type="checkbox"/>	1	Phosphate

Legend:	<input checked="" type="radio"/>	= qualitative correct	n = corresponding number of results
	<input type="radio"/>	= qual. correct with reservation	
	<input type="checkbox"/>	= correct position (1., 2. or 3.)	
	•	= your qualitative analysis	
			* = your quantitative result

Sample D

- Struvite (40%), Whewellite (30%), Apatite (30%) -

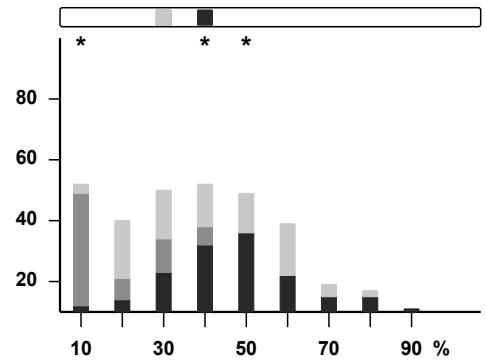
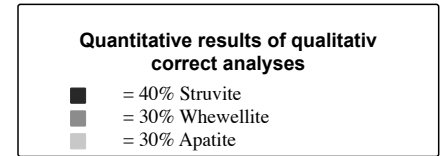
I. Qualitative/quantitative evaluation of methods

Infrared spectroscopy

number of participants

99

1.	n	2.	n	3.	n	Substance	n
<input checked="" type="checkbox"/>	58	<input checked="" type="checkbox"/>	33	<input checked="" type="checkbox"/>	3	Struvite	94
<input checked="" type="checkbox"/>	37	<input checked="" type="checkbox"/>	41	<input checked="" type="checkbox"/>	16	Apatite	94
<input type="checkbox"/>	2					Magnesium ammonium phosphate	2
<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	19	<input checked="" type="checkbox"/>	45	Whewellite	65
	1					Artefact/Forgery of unknown origin	1
			1			Brushite	2
		<input type="checkbox"/>	1			Calciumoxalate	1
		<input type="checkbox"/>	1			Calciumphosphate	1
					4	Weddellite	4
					1	Monoammonium urate	1
					1	Protein	1

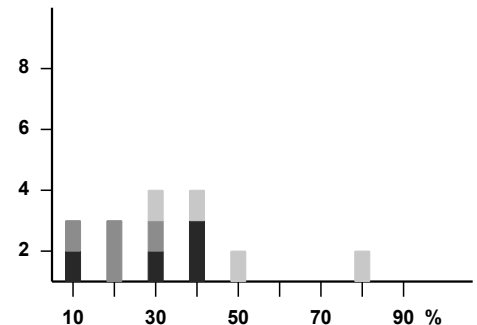


X-ray diffraction

number of participants

4

1.	n	2.	n	3.	n	Substance	n
<input type="checkbox"/>	3	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>		Apatite	4
<input checked="" type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	1	Struvite	4
		<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/>	3	Whewellite	4

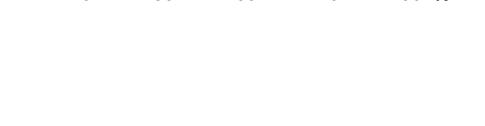


Chemical analysis and others

number of participants

5

1.	n	2.	n	3.	n	Substance	n
<input checked="" type="checkbox"/>	3	<input type="checkbox"/>	2			Struvite	5
<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	2			Apatite	3
	1		1			Whitlockite	2
				<input checked="" type="checkbox"/>	2	Whewellite	2
					1	Weddellite	1



II. Evaluation of single components (Ions)

<input type="checkbox"/>	11	Phosphate
<input type="checkbox"/>	10	Calcium
<input type="checkbox"/>	9	Ammonium
<input type="checkbox"/>	8	Magnesium
<input type="checkbox"/>	8	Oxalate
<input type="checkbox"/>	3	Carbonate

