

Materials List for:**Preparation of Keratin Hydrolysate from Chicken Feathers and Its Application in Cosmetics**Pavel Mokrejš¹, Matouš Huttá¹, Jana Pavláčková², Pavlína Egner²¹Department of Polymer Engineering, Faculty of Technology, Tomas Bata University in Zlín²Department of Fat, Tenside and Cosmetics Technology, Faculty of Technology, Tomas Bata University in ZlínCorrespondence to: Pavel Mokrejš at mokrejs@ft.utb.czURL: <https://www.jove.com/video/56254>

DOI: doi:10.3791/56254

Materials

Name	Company	Catalog Number	Comments
Material or chemicals			
LIPEX 100T	Novozymes	LJP30020	<i>Lipex</i> - enzyme produced by submerged fermentation of a genetically-modified microorganism, activity 100 KLU/g
Savinase Ultra 16L	Novozymes	PXN40001	<i>Savinase</i> - enzyme produced by submerged fermentation of a genetically-modified microorganism, activity 16 KNPU-S/g
Potassium hydroxide, KOH	Sigma-Aldrich	302510289	Potassium hydroxide, KOH, 97,0 %, Mr 56,11
Phosphoric acid solution, H ₃ PO ₄	Sigma-Aldrich	W290017	Phosphoric acid solution, H ₃ PO ₄ , 85 wt. % concentration in water, Mr 98,00
Sodium chloride physiological solution	Sigma-Aldrich	52455	Tablets of BioUltra NaCl physiological solution; 1 tablet in 1000 mL of water yields 0.9 % NaCl
Sodium hydroxide, NaOH	Penta s.r.o.	40216	Sodium hydroxide, NaOH, 97,0 %, Mr 40,00
AmiFarm (Cremor base-A)	Fagron	608425	Hydrophilic oil in water (O/W) cream base; the composition: aqua, paraffin, paraffin liquid, cetearyl alkohol, Laureth 4, sodium hydroxide, carbomer, methylparaben, propylparaben.
Name	Company	Catalog Number	Comments
Equipment			
IKA EUROSTAR POWER control-visc stirrers	IKA-labortechnik	Z404020	Digital laboratory stirrer, for tasks up to the high viscosity range, 230V, 1/cs
IKA Propeller stirrer, 3-bladed	IKA-labortechnik	R 1381	Propeller stirrer, 3-bladed, stirrer Ø: 45 mm, shaft Ø: 8 mm, shaft length: 350 mm
Dialysis tubing closures	Sigma-Aldrich	Z371017-10EA	Dialysis tubing closures, red, size 110 mm
Dialysis tubing cellulose membrane	Sigma-Aldrich	D9402-100FT	Dialysis tubing cellulose membrane, average flat width 76 mm (3.0 in.)
DOMO Pot with stainless, LCD	DOMO Elektronic	DO42325PC	Preserving boiler stainless steel, 2000 W, 27-L container (diameter 37 cm, height 30 cm), temperature

			control 30-100 ° C, operation LCD display
Hettich zentrifugen Universal 32	Gemini bv	2770 GS1R	Mid bench centrifuge, speed 18000 rpm
LT 3 shaking device	Fischer Scientific	6470.0002	Orbital shaking device
KERN 440-47N	Kern	440-47N	Laboratory balance
KERN 770	Kern	770 -N	Laboratory analytical balance
VENTICELL 222 - Komfort	BMT, MMM Group	C 131749	Drying oven, temperature control 30-100 ° C, air circulation control
Vacucell 55 - EVO	BMT, MMM Group	B 050328	Vacuum drying oven, temperature control 30-100 ° C
PULVERISETTE 19	Fritsch	19.1030.00	Universal cutting mill, rotor with V-cutting edges and fixed knives
Multi Probe Adapter System MPA 5	Courage & Kazaka Electronic	10225237	MPA 5 Station - equipment for measurement hydration, TEWL and pH
Skin pH-meter PH 905 probe	Courage & Kazaka Electronic		Probe to specifically measure the pH on the skin surface or the scalp
Corneometer CM 825 probe	Courage & Kazaka Electronic		Probe to determine the hydration level of the skin surface (Stratum corneum).
Tewameter TM 300	Courage & Kazaka Electronic		Probe for the assessment of the transepidermal water loss (TEWL)
Heidolph RZR 2020	Heidolph	13-225-007-03-1	Overhead stirrer, mechanical speed setting and stepless transmission; speed range 40-2000 rpm
Heidolph mechanical stirrer BR 10	Heidolph	Z336688-1EA	Blade impeller crossed stirrer
Fagor FS 12	Fagor	BTT-138	Laboratory refrigerator with freezer space
WTW bench pH/mV meter	WTW	Z313165	High-performance bench pH and pH/conductivity meters for routine and high precision laboratory measurements in research or quality control laboratories
Container	RPC Superfos		13-L plastic bucket, diameter 26 cm, height 26 cm
Name	Company	Catalog Number	Comments
Software			
Microsoft Office 2010	Microsoft		
C+K software	Courage and Khazaka Electronic GmbH	MPA 5 station operating software	