

(Santalum album)

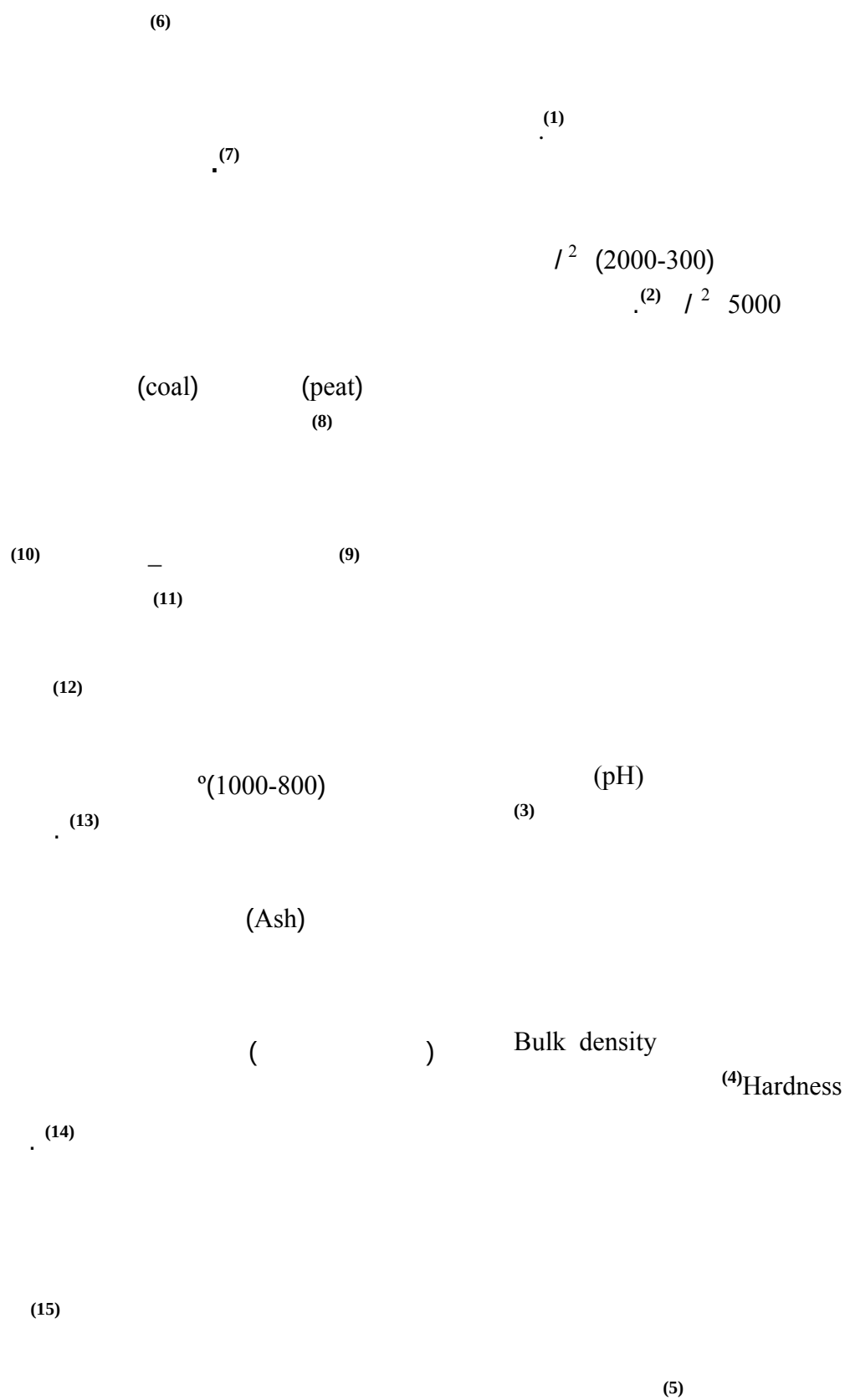
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(NJC)**(2005/ 3 / 23)****(2004/ 2 / 28)****Abstracts**

The choice of the feedstock which is of a certain type and quality to produce activated carbon is a vital task and importance due to the use and application of the produced carbon. Because and comparing the knowledge available in the literatures and the one ,We know it already about the special type and mainly medical type.

We attempt use Santalum album which have a solid feature and contain large amount of lignin carriers. Lignin it self contain phenolic , carboxylic and ester groups which the oxidized form of the wood. Hydrogene in the chemical structure was removed by using stepwise direct fusion using different quantities of sodium hydroxide under the same experimental conditions. The study revealed that increasing the amount of NaOH lead to produced a good quality of activated carbon which almost neutral in nature(pH=7).

The samples produced were studied in term of adsorption and other physical properties. The results indicate that the carbon produced is superceeded the commercial once from B.D.H. not only in term of adsorption but in term of low ash and density.



(350) °م

ثم اتممت عملية الكربنة باستخدام هيدروكسيد
الصوديوم عند درجة حرارة (550) °م وكان
الناتج ذو مواصفات ممتازة كما ونوعا (23) .

(17,16) .

(Jungten)

(350)

(V₂O₅)

3 °

° (550)

(24) 3

(18)

(Vohler)

3

NaIO₄

(19)

° (350)

(Young)

° (550)

(25) 3

(Metcalf)

(13)

: -1

-)

.Spectrophotometer (

.Electric shaker -

Electric °(1000) -

(20)

.oven

steel) -

.(Stainless

(21)

3

°(550)

.desiccater -

.Mortar -

: -2

(%20,15,10,5,0)

(22)

: -3

$$I.N. = X / M * D \quad (10)$$

$\therefore$
 $\therefore X$ (2:1,1.5:1,1:1,0.5:1)
 $\therefore$ (NaOH :) (:)
 $\therefore M$
 (Correction Factor) $\therefore D$ ° (350)

$\therefore$
 $\therefore$ -4
 $\therefore$ (11)

$\therefore$ ° (550)
 (0.1)
 (100)
 (20 ppm)
 (24) : -5

(50)

(665nm) (% 10) 25

$\therefore$ ° (130)
 (ppm25,20,15,10,5)
 $\therefore$ -6

$\therefore$ (19)
 $\therefore$ -7
 $\therefore$ -

$\therefore$ -
 (24) (1)
 $\therefore$ ° (130) (11) (I.N.)

.
 : -
 (2)_ (5)
 :

$$\left(\frac{3}{\quad} / \quad \right) / \quad =$$
 : -
 (2-0.5) NaOH (1)
 (:)
 ° (500) ° (1000)
 (desiccater)
 ° (500)
 .
 : -
 () (1)
 HCl (%10) (10)
 .
 (24)
 (26)
 . (1)

(1)

Sample	Wood: NaOH	Iodine No. (mg/gm)	Methylene Blue (mg/gm)	Ash (%)	Humidiy (%)	Density gm/cm ³
AS	1:0.5	970.5	36.4	0.53	6.4	0.11
BS	1:1	971.3	64.7	0.7	8.2	0.07
CS	1:1.5	1084.9	82.8	0.78	9.1	0.05
DS	1:2	1146.1	220.8	1.02	11.9	0.06
B.D.H.		908	90	3.2	0.8	0.325

(1)

(DS)

(2)

(0.5)

(PH)

(1:1)

(-908)

(B.D.H.)

()

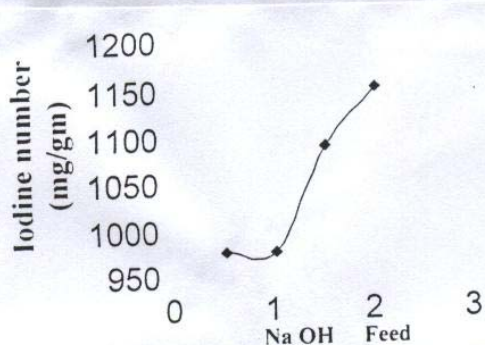
(-90)

(DS,CS,BS)

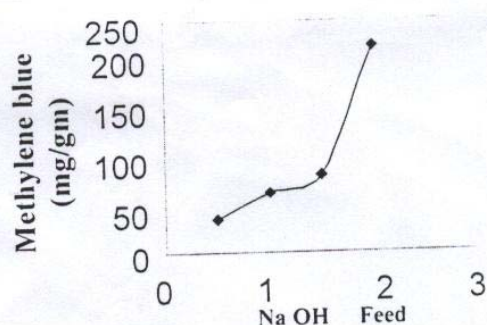
(300)

(DS)

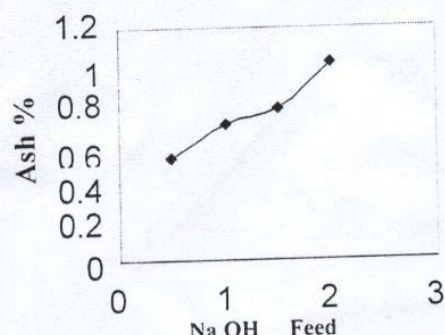
(5-1)



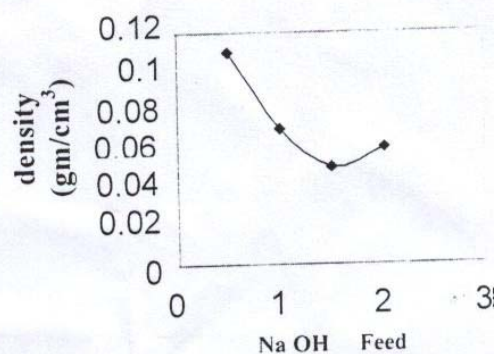
شكل (1) العلاقة بين نسبة (Na OH) المضافة والرقم اليودي للكربون المنشط



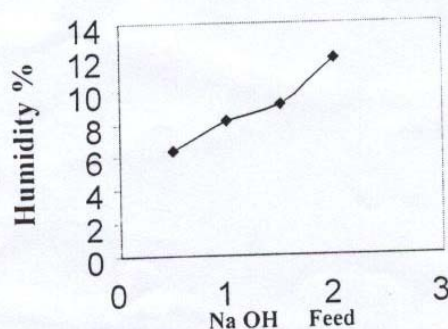
شكل (2) العلاقة بين نسبة (Na OH) المضافة وصبغة الميثيلين الزرقاء للكربون المنشط



شكل (3) العلاقة بين نسبة (Na OH) المضافة والرماد للمواد للكربون المنشط



شكل (4) العلاقة بين نسبة (Na OH) المضافة والكثافة للكربون المنشط



شكل (5) العلاقة بين نسبة (Na OH) المضافة والرطوبة للكربون المنشط

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