

เอกสารอ้างอิง

กสิน สุวตะพันธ์ ระย้อม ใน อนุสรณ์งานพระราชทานเพลิงศพศาสตราจารย์ กสิน
สุวตะพันธ์ หน้า 144-156 บริษัท สารมวลชน จำกัด 2522

เรณู คำรงธรรม การศึกษาเรื่องการเจริญเติบโตเปลี่ยนแปลงของเอ็มบริโอแซค
และบางส่วนของโอดูลในพุทธรักษาและระย้อม Senior Project ภาค
วิชาพฤกษศาสตร์ คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย 2509

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ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

ตารางผนวกที่ 1 : สูตรอาหาร (basal medium) ของ Murashige and Skoog (1962) และ Linsmaier and Skoog (1965)

สารเคมี	Murashige & Skoog(1962) มก./ล.	Linsmaier & Skoog(1965) มก./ล.
<u>Macronutrient:</u>		
NH ₄ NO	1,650	1,650
KNO ₃	1,900	1,900
CaCl ₂ . 2H ₂ O	400	400
MgSO ₄ . 7H ₂ O	370	370
KH ₂ PO ₄	170	170
<u>Micronutrient:</u>		
MnSO ₄ . 4H ₂ O	22.30	22.30
KI	0.83	0.83
ZnSO ₄ . 7H ₂ O	8.60	8.60
CoCl ₂ . 2H ₂ O	0.025	0.025
H ₃ BO ₃	6.20	6.20
Na ₂ NoO ₄ . 2H ₂ O	0.25	0.25
CuSO ₄ .5H ₂ O	0.025	0.025
FeSO ₄ . 7H ₂ O	27.80	27.80
Na ₂ .EDTA	37.30	37.30
<u>Organic constituents:</u>		
Glycine	2	-
Nicotinic acid	0.50	-
Pyridoxine HCl	0.50	-
Thiamine HCl	0.10	0.40

ตารางผนวกที่ 1 (ต่อ)

สารเคมี	Murashige & Skoog(1962)	Linsmaier & Skoog(1965)
	มก./ล.	มก./ล.
	0	
sucrose	30,000	30,000
Agar	8,000	8,000
Distilled Water (มล.)	1,000	1,000

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

ตารางแสดงแถบสีมาตรฐาน Exotica Horticultural Color Guide
 ของ A.B. Graf, Roehrs Company, N.J.,
 U.S.A., cited by the National Bureau
 of Standards

EXOTICA Horticultural Color Guide

GRADATION OF BARKNESS TONES

GRADE OF SPECIFIC COLORS	TINTS measured for shading to 50% lighter or white							SHADES measured for shading to 50% darker or black						
	1 PALE	2 LIGHT	3 MODERATE	4 DARK	5 VERY DARK	6 STRONG	7 BLACKISH	1	2	3	4	5	6	7
YELLOW 200*	1 CREAM	2 W. HORN	3 PEARL	4 BUTTERFLY YELLOW	5 GOLD	6 LIGHT BROWN	7 CAUCASIAN							
YELLOW ORANGE 220*	8 MOON	9 SUN	10 CHERRY TRUFFLE	11 APPLES	12 BURNING ORANGE	13 LILACWOOD	14 BROWN							
ORANGE 240*	15 PINK PINK	16 SHAMON	17 CARROT RED	18 ORANGE	19 COPPER	20 BROWN RED	21 RED							
ORANGE RED 260*	22 PINK	23 CORAL	24 MANDARIN RED	25 SPARK	26 SWEET	27 REDDISH RED	28 CHERRY RED							
RED 280*	29 WINE PINK	30 CLEAR RED	31 BROWN RED	32 CRIMSON	33 BURNING RED	34 WINE RED	35 BURNING RED							
RED PURPLE 300*	36 BURNING PURPLE	37 BURNING PURPLE	38 PINK	39 PURPLE	40 PURPLE	41 BURNING PURPLE	42 PURPLE							
PURPLE 320*	43 LAVENDER	44 LAVENDER	45 PURPLE	46 PURPLE	47 PURPLE	48 PURPLE	49 PURPLE							
PURPLE BLUE 340*	50 PURPLE	51 PURPLE	52 PURPLE	53 PURPLE	54 PURPLE	55 PURPLE	56 PURPLE							
BLUE 360*	57 PURPLE	58 PURPLE	59 PURPLE	60 PURPLE	61 PURPLE	62 PURPLE	63 PURPLE							
BLUE GREEN 380*	64 PURPLE	65 PURPLE	66 PURPLE	67 PURPLE	68 PURPLE	69 PURPLE	70 PURPLE							
GREEN 400*	71 PURPLE	72 PURPLE	73 PURPLE	74 PURPLE	75 PURPLE	76 PURPLE	77 PURPLE							
YELLOW GREEN 420*	78 PURPLE	79 PURPLE	80 PURPLE	81 PURPLE	82 PURPLE	83 PURPLE	84 PURPLE							

A. B. GRAF, ROEHRS COMPANY
 7842, 1979 E. HUNTSVILLE NJ

For alphabetical listing of color names and finding key, see opposite side

สารทำปฏิกิริยาให้สี (Chromogenic reagents)

1. Ammonium vanadate Reagent:

ละลาย 1% ammonium vanadate ใน 50% nitric acid solution

2. Ceric sulphate - sulphuric acid reagent

Spray reagent: ละลาย ceric sulphate ในน้ำ 4 มล. เติม trichloroacetic acid ลงไป 1 กรัม, ต้ม, หยด sulphuric acid (d 1.84) ลงไปช้าๆ ทีละหยด จนกระทั่งสารละลายใส

3. Dragendorff's Reagent

Solution a : ละลาย 0.85 กรัม basic bismuth nitrate ในสารผสมระหว่าง acetic acid 10 มล. กับ น้ำ 40 มล.

Solution b : สารละลาย potassium iodide 8 กรัมในน้ำ 20 มล.

Stock solution : ผสม solution a กับ solution b ปริมาตร เท่ากัน เข้าด้วยกัน (สามารถเก็บได้เป็นเวลานานในขวดแก้วสีดํา)

Spray reagent : ผสม stock solution 1 มล. กับ acetic acid 2 มล. และน้ำ 10 มล. ก่อนนำไปใช้

4. Ferric chloride-perchloric acid reagent

Spray reagent : ผสม 0.5M aqueous Ferric chloride solution 1 มล. กับ 35% perchloric acid 50 มล.

ประวัติผู้วิจัย

นาย กรวิชัย ฅ กลาง เกิดเมื่อวันที่ 1 กันยายน พ.ศ.2501 ณ กรุงเทพมหานคร สำเร็จการศึกษาได้รับปริญญาวิทยาศาสตรบัณฑิต สาขาชีววิทยา (พฤกษศาสตร์) จากคณะวิทยาศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ ปีการศึกษา 2524 และได้เข้าศึกษาต่อในหลักสูตรปริญญาวิทยาศาสตรมหาบัณฑิต สาขาพฤกษศาสตร์ ในภาควิชาพฤกษศาสตร์ คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ปีการศึกษา 2524 โดยได้รับทุนอุดหนุนการวิจัยจากบัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย



ศูนย์วิทยพัชร์พยากร
จุฬาลงกรณ์มหาวิทยาลัย

