Felix Buccellato Custom Essence Inc. 53 Veronica Avenue Somerset, NJ 08873

Subject: Viburnum Carlesii 'Aurora'

Common Name: Koreanspice viburnum

Type: Deciduous shrub Family: Adoxacea

This is a very slow growing tree-like shrub that I planted in 1986 which now stands about 10 feet tall by 10 feet wide.

It has a beautiful, intoxicating and almost narcotic aroma that is a blend of spice, balsam, vanilla and tobacco. It is so complex and diffusive that you really can't help but be attracted to the sultry and sophisticated aroma, especially at night.

I have been studying this for years both analytically and olfactorily. It did not take long to discover that the aroma is enhanced in the evenings. It only blooms for a few weeks at the end of April to the beginning of May. (At least in my location in Central New Jersey.

I have tabulated some of my analyses below from the past two years.

Photos of plant and blossoms close up











10 blossom hand-picked at night approx. 9:00 pm 1 year apart for years 2012 and 2013

olossom hand-picked at night app			
Material Identified	2012	2013	Notes
Butanal, 3 methyl		0.20	Chocolate
Butanal, 2 methyl		0.06	Chocolate
2-Butanone, 3 hydroxy		0.10	Wine & Butter
Hexanal		0.02	Green
Hexenol cis 3		0.13	Green
Styrene		0.23	
Heptanal		0.10	Green
Propanal, 3-(methylthio)		0.04	Tropical
Benzoquinone, para	3.13	2.18	
Pinene alpha		0.21	
Benzaldehyde			Almond
Limonene	0.03	7.96	
Benzyl Alcohol	0.36	0.97	
Undecane	0.19		
Methyl Benzoate		0.32	Ylang
Nonanal	0.11	0.18	
Para Cresol		0.06	
Methyl Nicotinate	0.24	0.36	
Benzyl acetate		0.02	
Methyl Salicylate		0.03	
Decanal		0.02	
Tetradecane	0.12		
Cinnamic aldehyde		0.01	
Hydroquinone 1,4 Benzene diol isomer	0.20	0.76	
Hydroquinone 1,4 Benzene diol	0.30	0.40	
Eugenol	0.07	0.14	
Indole		0.05	
Pinene beta		0.36	
Vanillin	0.12	0.50	
Vinyl Guaiacol		0.07	
Isoeugenol cis	0.10	0.10	
Isoeugenol trans	4.70	3.24	
Tricosane	0.11	0.00	
Methyl Isoeugenol	0.82	1.34	
Elemicin	0.48	0.57	
Methoxy Eugenol	0.21	0.00	
Methyl vanillyl ketone		0.35	
Benzaldehyde, 4-hydroxy,	0.17	0.36	

3,5 dimethyl			
Benzenemethanol, 3,4,5	1.07	0.77	
trimethoxy#			
Indole-3-acetaldehyde	0.55	0.13	
Unknown See note	0.68	0.19	FB found in 3% in Jasmin Blossom Extract
Benzyl Benzoate	2.39	3.15	
Farnesyl acetone, hexahydro	1.28	1.59	
Benzyl salicylate	0.45	1.16	
Unknown Hydrocarbon?	4.26	4.02	
Docosane?	1.07	1.08	
Stearic Acid		1.14	
Tricosane	15.67	9.62	
Tetracosane?	1.91	1.36	
Tetradecanal polymer	1.87	1.63	
Pentacosane	12.32		
Unknown	10.51		
Tetracosanoic acid, methyl ester	1.10		
Squalene	1.91		FB Found 4% in Jasmin Absolute
Octacosane	6.02		Also found in Gardenia extract FB
Unknown	2.80		
		1	

## **Elements and odor profiles:**

## **Spicy and Narcotic:**

The items that are responsible for this overall profile of Viburnum are; Isoeugenol, eugenol, para cresol, vinyl guaiacol, methyl eugenol, methoxy eugenol and methyl nicotinate. Together they form the foundation, backbone and spicy narcotic almost intoxicating aroma of Virburnum.

## **Powder and Floral Balsam:**

The small amount of Indole is extremely effective and note the presence of Indole acetaldehyde along with the warm and sultry effect of vanillin along with methyl salicylate, cinnamic aldehyde and methyl benzoate which introduces the element that is reminiscent of Ylang.

## Top notes and modifiers:

The most volatile and impactful items are the low molecular weight aldehydes like 2 and 3 methyl butanals, along with 2-butanone, 3 hydroxy.

The Green and foliage notes are represented by Hexanal, Heptanal along with Hexenol (Z)-3.

The tropical and fruity notes come from 3(methylthio) propanal.

This particular blend of ingredients so easily supplied by nature would be extremely restricted in use as a fragrance that has any skin contact due to the high levels of isoeugenol.

As one might imagine, it is always the job of the skilled perfumer to compose a blend that achieves a similar aroma and performance profile that would allow the use in cosmetic and skin product applications.

I always enjoy and learn from the lessons that nature reluctantly reveals to me after a serious course of study.