



## CALCIUM CARBIDE ACTIVATION TOWARDS NUCLEOPHILIC ADDITION



The project is a continuation of the search for practical methods of incorporating carbon-carbon triple bonds in various molecules to construct derivatized acetylenes. Acetylenes have been shown to be important in drug action and have been interesting synthetic targets.

This work was specifically directed at optimizing reaction conditions for the previously reported reaction of calcium carbide with carbonyl compounds.

Calcium carbide ( $\text{CaC}_2$ ) reacts with two ketone equivalents to form acetylenic diols. The reaction is enhanced by the addition of alkali metal hydroxides such as potassium hydroxide and sodium hydroxide. Potassium hydroxide appears to be a better activating agent based on product yields while no diol was detected when lithium hydroxide was used as additive.



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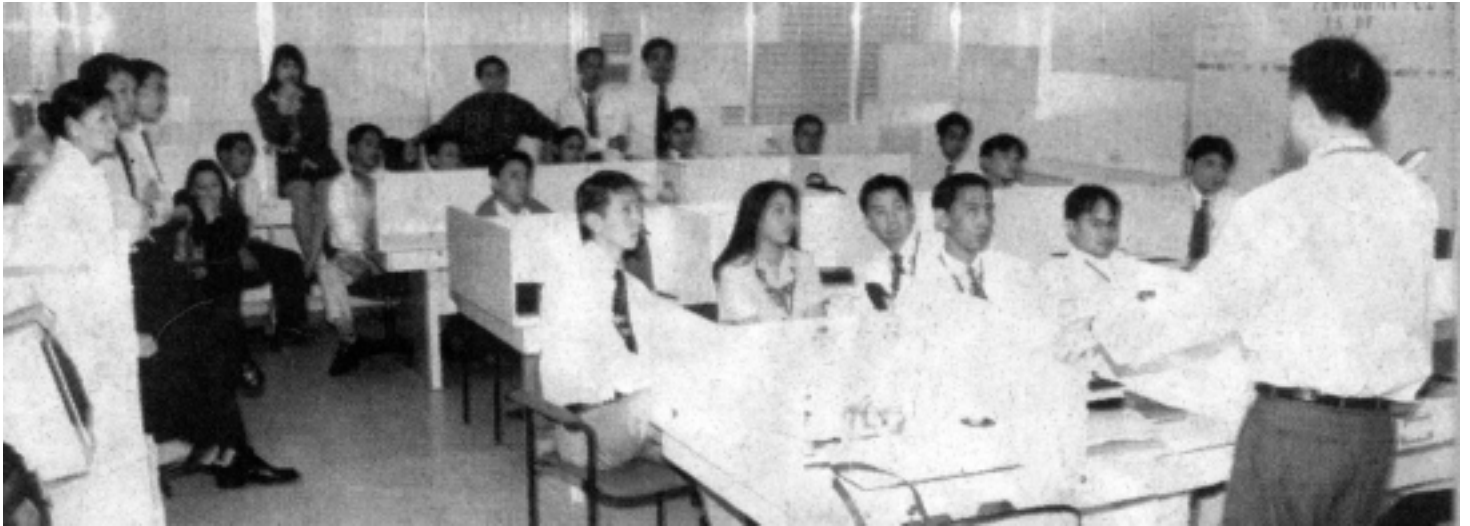
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# THE IMPACT OF GOAL ORIENTATION AND THE MODERATING EFFECT OF EXPERIENCE ON SALESPERSONS' PERFORMANCE



How salespersons fare in the world of professional selling is the concern of all marketing organizations. Being key players in the sales arena, salespersons have the most important job to do. Although their role is always fraught with challenges and change, their performance should be consistently good so that they can meet the demands of their dynamic profession and sustain their productivity. Thus, the need for management to understand what factors influence salespersons' performance is of utmost importance for them to attain competitive advantage.

Studies have shown that supervisors have influence on their salespersons in terms of the latter's attitude to learn and perform, in short, their goal orientations. There were findings that high levels of supervisory orientations are correlated with high levels of salespersons' goal orientations. Recommendations were forwarded, such as directing high levels of goal orientations to salespersons' performance and to consider other factors, like experience, that may contribute to performance.

Thus, this study was undertaken as an offshoot of a previous research which was done along the line of the aforementioned studies. The researcher chose the salespersons in the domestic shipping lines as subjects for this research work which aimed to determine the impact of goal orientations and the moderating effect of experience on salespersons' performance.

Using the descriptive and correlational designs, survey was conducted to 82 salespersons from a sample of 8 domestic shipping firms.

The data gathered through the use of a survey questionnaire were analyzed using various statistical tools, namely: the mean, one-way repeated measures and item analysis, the Pearson product moment correlation analysis, and the stepwise regression procedure.

The study presented: (1) salespersons' goal orientations in terms of learning and performance goal orientations; (2) salespersons' experience as the sum

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of the number of years in previous and present employments; and (3) salespersons' performance.

Findings revealed that: (1) the salespersons have high levels of learning and goal orientations; (2) the salespersons exercise high levels of performance; (3) goal orientations have high impact on salespersons' performance; and (4) salespersons' experience has a moderating effect on performance.

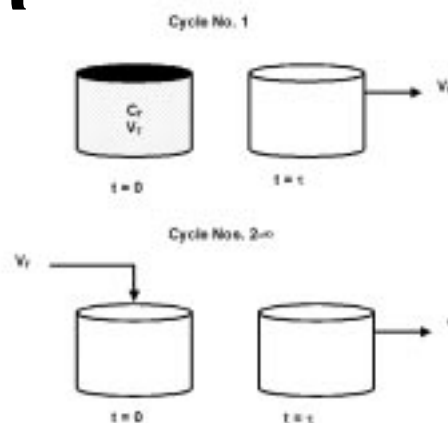
Based on the result and its implications, the following recommendations are made for management

(1) to sustain high level of salespersons' goal orientations; (2) to maintain high level of salespersons' performance; (3) to reinforce efforts to build good customers relations; and (4) to continuously evaluate the competitiveness of the salesforce as well as its service offerings' and for researchers (5) to conduct research on other related areas; and (6) to adopt the questionnaire of this research to evaluate salespersons' performance



# EFFECT OF THE REACTOR HEAT CAPACITY ON THE STABILITY AND START-UP TIME OF A DIABATIC CONTROLLED-CYCLED STIRRED TANK REACTOR

A simple model was written to simulate first-order exothermic reaction in a diabatic controlled-cycled stirred tank reactor (CCTR) in which the reactor jacket heat capacity was not infinitely larger than the reacting fluid heat capacity. The simulations showed that including the reactor heat capacity in the model stabilized the oscillatory states to a unique steady state. Another surprising result in using smaller reactor heat capacity was the shorter transition time needed to reach the final steady state. The study demonstrated the possibility of achieving reactor stability and short start-up time through simple changes in the reactor design rather than through complex control systems.



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# THE IMPACT OF HORIZONTAL MERGERS ON THE PERFORMANCE OF SELECTED BANKS IN THE PHILIPPINES: A COST-BENEFIT ANALYSIS

The study endeavors to determine the impact of horizontal mergers on the performance of selected banks in the 1990s. It seeks: (1) to determine the performance of banks before and after the merger by analyzing their deposit, lending and investment portfolios; (2) to determine the transaction costs and the benefits derived from the three activities before and after the merger; (3) to measure the financial performance of the banks using CAMEL ratios; (4) and to be able to propose solutions in enhancing the benefits derived from the business combinations.

While there were quite a number of banks that merged during the 1990s, only six banks qualified in the study as other business combinations took effect in 1999 or were acquired by other banks during the years 1997 up to 2002. These are the merger between Bank of the Philippine Islands and Citytrust Banking Corp., Union Bank of the Philippines and International Corporate Bank, and PDCP Bank and Producers/First Bank. Exclusion of the other banks was done as the three-year pre- and post-merger operational and

financial performances were considered to capture the costs and benefits, if any. For the post-performance assessment, only surviving banks were considered.

All banks exhibited growth in their deposit, lending and investment portfolios before and after the merger. Only PDCP Bank, being a thrift bank, had the lowest volume and ratio of funding base. The pre-merger operational performance of the acquired banks was better compared to their acquirers' particularly in the management of their lending activities as they were able to maintain or increase their income while lowering costs of funds. Hence, most banks relied heavily on volatile deposits which entailed high cost that impede their efficiency in maximizing profitability.

The post-merger performance of the acquirers, namely BPI, UBP and PDCP, reflected remarkable portfolio growth during the first year after the combination. Hence, the Asian and regional contagion had affected the performance of BPI and PDCP—as

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the business combination occurred in 1996, particularly their lending activities. BPI and UBP reflected almost stable profitable operations while maintaining strong liquidity positions compared to the industry ratios. This is due to the quality of the portfolios provided by their acquired counterparts and cautious management of their asset quality. Except for BPI and Citytrust, the other banks reflected low and below industry capital and ratios and high leverage ratios despite continuous increase in the banks' capital base.

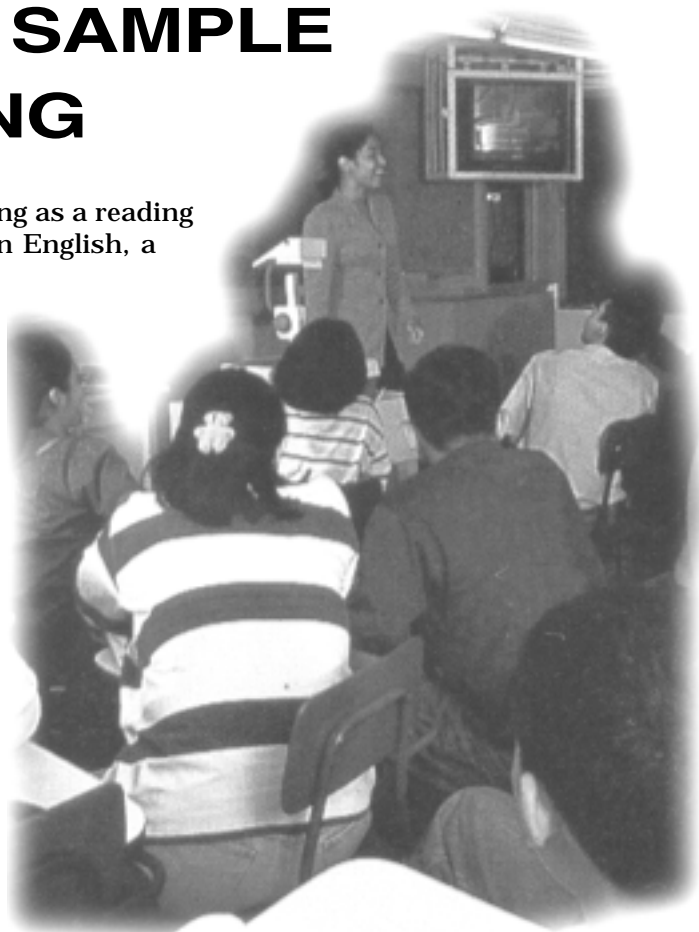
While the merger provided tolerable, yet adverse impact on some aspects of the banks' operations, its benefits must not be discounted. This can be reflected by increasing rate of business combinations during the late 1990s and the strong move by the Bangko

Central ng Pilipinas for financial institutions to merge or acquire. Each bank has its own reason(s) for engaging into a business combination, whether an acquirer or an acquired bank. Hence, management must exercise due diligence in handling its business activities and in continuously maximizing the benefits they could derive thereto, both operational and financial in nature. There must also be a transparent move to further regulate banks within a given period after the merger by providing guidelines or circulars pertaining to mergers and acquisition and by increasing regulatory burden among acquirers such as, special reporting requirements for newly merged banks and capital adequacy monitoring that is adjusted not only for credit risk but also for market and operational risks.

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## SELF-QUESTIONING AND PROSE COMPREHENSION: A SAMPLE CASE OF ESL READING

An experiment was conducted to find out if self-questioning as a reading strategy would help improve comprehension of prose texts in English, a second language for Filipinos. Following a pretest-posttest design, students enrolled in Developmental Reading were randomly assigned to the control group, which read the assigned text, and the experimental group, which used self-questioning as a reading strategy. The control and experimental groups took the same test in the pretest and posttest and their performances were compared. Overall, the experiment showed that self-questioning did not have a significant effect on comprehension of a prose text in English. Although results showed that verbal ability was a factor in the ability to generate questions, the type and number of questions asked were not significant factors in test performance. The cultural background of the participants, time constraints, the method of comprehension evaluation used by the study, and the nature and duration of question-formulation training could all help to explain the results achieved.



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# PESTILENCE IN THE PHILIPPINES: A SOCIAL HISTORY OF THE FILIPINO PEOPLE, 1571-1800

The history of epidemics, typhoons, floods, droughts, pests and plagues, and other man-made and natural calamities in the Philippines remains unwritten, especially the period from 1571 to 1800. Published accounts have focused more on the 19th century, particularly on the Christianization of the natives, the Spanish-Moro wars, and the many other wars waged by Spain against her local and foreign foes. In short, written Philippine history to date highlights Spain's achievements in the Philippines and not what had happened to the inhabitants consequent to Spanish conquest and rule.

Originally titled "Juan Tamad in Philippine History," this study has been revised and retitled "Pestilence in the Philippines..." to discuss in detail the many things that had happened to the inhabitants of the Philippines from 1571 to 1800 and to emphasize the reasons why the stereotyped image of the Filipinos as an indolent, backward, and inferior people became so popular. This research is based on hitherto unused original Spanish documents housed in the Records Management and Archives Office (formerly, the Philippine National Archives). Content and empirical analyses of these documents reveal a totally different history of the Filipino people.

To make the Philippines a colony of Spain, the Spaniards launched a series of bloody military campaigns against the local populations. The Spanish conquest was facilitated by a secret ally of the Spaniards—the deadly viruses of smallpox and typhoid fever—which they brought with them from the Old World and from which the natives did not have any immunity at all.

Contrary to the generally accepted fact, the Spaniards conquered the country and its inhabitants not by military superiority nor by the friars but by the deadly viruses of smallpox and typhoid fever. Without knowledge of these diseases, the natives died by the tens of thousands through the years. Thus, began the myth of Spanish invincibility.

The period of conquest was followed by the Spanish exploitation of the human and natural resources of the country. Yearly, the natives were conscripted to fight Spain's wars, and forcibly involved in building and maintaining the colonial infrastructure (churches, convents, roads and bridges, government edifices, galleons, and villas). Tributes in kind and in cash were collected, war or no war, epidemic or no epidemic, typhoon or no typhoon. These annual colonial exactions physically weakened the natives who, without sufficient nourishment, were rendered malnourished. Malnourished, they became more susceptible to the deadly Spanish-carried viruses of smallpox and typhoid fever.

The period from 1571 to 1800, as archival documents indicate, was a history of smallpox and typhoid fever epidemics, of typhoons and floods, of fires and droughts, pests and plagues (especially locusts, rats, and worms that devastated the croplands), earthquakes and volcanic eruptions, local rebellions, and foreign invasions. All these brought death and destruction to the natives who bore the brunt of these man-made and natural calamities. In other words, Philippine history from 1571 to 1800 was also a history of the Filipino people's miseries and afflictions.



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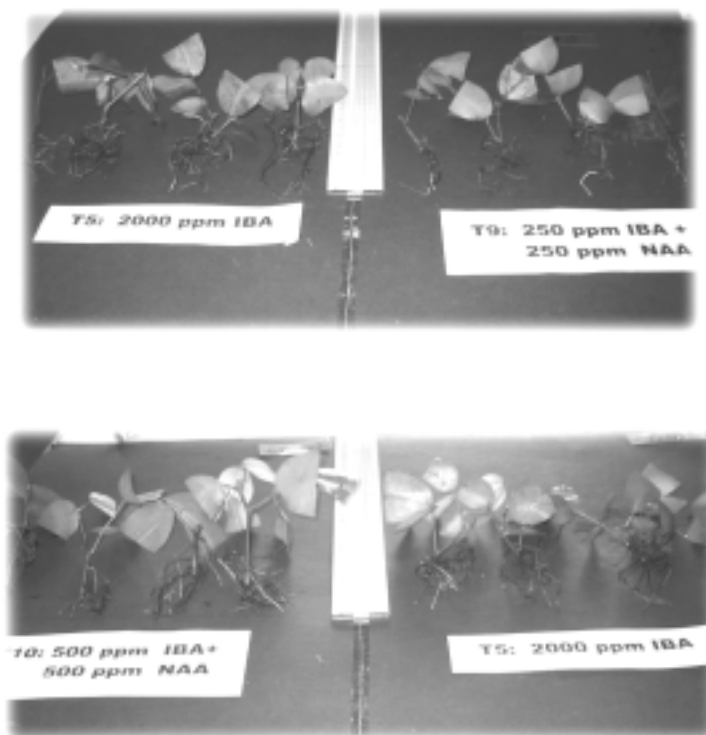
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# ROOTING OF STEM CUTTINGS IN *INTSIA BIJUGA* (COLEBR.) O. KUNTZE (FAMILY CAESALPINIACEAE)



Rooting responses in stem cuttings of *Intsia bijuga* (Colebr.) O. Kuntze (Family Caesalpiniaceae) with nodes 1-3 (young) and 4-5 (mature) from the shoot tip were variable with the formation of (a) dot-like fissures with emerging roots less than 1 inch long, (b) 1-2 roots without laterals, and (c) 1-3 roots with laterals or profuse roots. Some did not root at all.

Percent viability in young cuttings was slightly higher than in mature cuttings but for most treatments, these were not significantly different. Absence of rooting ranged from 0% to 40% in young cuttings and from 5% to 70% in mature cuttings. Rates of formation of dot-like fissures and emerging roots in both young and mature cuttings were not significantly different in almost all of the treatments.

Young cuttings rooted 100% under three treatments: 1500 ppm IBA, 2000 ppm IBA, and 500 ppm IBA-500 ppm NAA. Total rooting percent in 0.1% Superthrive (a vitamin-hormone solution) was 78% and 17% in young and old cuttings, respectively. Young cuttings consistently performed better than old cuttings in all rooting responses observed. The study shows that the plant is an easy-to-root species since 91% of the young cuttings rooted under the control treatment. The ease of production of roots by even untreated cuttings indicates the low cost and commercial potential of producing *I. bijuga* clones.



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# 'GENTE BARBARA': AN EXPLORATION OF SPANISH NOTIONS OF IDENTITY IN THE PHILIPPINES, 1600-1700

This paper explores Spanish ideas of selfhood in the Philippines from 1600 to 1700. Through the analysis of three texts—Pedro Chirino's *Relacion de las Islas Filipinas* (1604), Antonio de Morga's *Sucesos de las Islas Filipinas* (1609), and Gaspar de San Agustin's *Conquistas de las Islas Filipinas, 1565-1615* (1698)—it attempts to shed light on some of the assumptions that underpinned Spanish assessment of the archipelago's diverse inhabitants in the 17th century. Neatly framing the period in question, these works can be expected to provide a fairly representative illustration of the contemporary Spanish frame of mind in the Philippines. Chirino, De Morga and De San Agustin were members of the castes that not only were instrumental in the Spanish conquest (De Morga was a military man and a high-ranking official, while Chirino and De San Agustin were religious), but that also comprised the bulk of the Spanish population. Moreover, their accounts concur on enough points to suggest that they shared a fundamental outlook. The examination of their narratives will enable readers to gain a better sense of this outlook and the basic transformations it went through between the dawn and close of the 17th century.



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